DOCUMENT RESUME

ED 118 323	RC 008 998
TITLE	Farmworkers in Rural America, 1971-1972: Part 3A, Land Ownership, Use, and Distribution. Hearings Before the Subcommittee on Migratory Labor of the Committee on Labor and Public Welfare, United States Senate, 92d Congress, 1st and 2d Sessions, January 11, 1972, San Francisco, Calif.
INSTITUTION	Congress of the U.S., Washington, D.C. Senate Committee on Labor and Public Welfare.
PUB DATE	11 Jan 72
NOTE	517p.; Pages 706-724 will not copy well. Not available in hard copy due to marginal legibility of original document
EDRS PRICE	MF-$1.00 Plus Postage. HC Not Available from EDRS.
DESCRIPTORS	*Agribusiness; Agricultural Laborers; Agricultural Trends; *Economic Factors; Landlords; *Land Use; Migrant Workers; Migration; *Power Structure; *Rural Areas; Rural Farm Residents; Socioeconomic Influences; Urban Immigration
IDENTIFIERS	*California

ABSTRACT

On January 11, 1972, the subcommittee heard further testimony on land ownership, use, and distribution in rural America. Witnesses gave testimony on: (1) Land ownership in California and the Nation; (2) the difficulties encountered in finding out who owns the land; (3) the implications of the continuing trend toward ever-higher concentration of land and economic and political Power in agriculture; (4) current developments in California agriculture from an historical perspective and their impact on farmworkers, farmers, and others affected by it; (5) the extent to which government policies and programs were meeting and serving the needs of all people in rural American; (6) the ecological and environmental implications of present and projected land ownership and use patterns; (7) rural-urban migration: and (8) the Federal tax laws pertaining to agriculture and migratory labor. Among the witnesses were attorneys, journalists, and representatives from the Agribusiness Accountability Project, the Bank of America in San Francisco, the Rand Corporation, and the California AFL-CIO. (NQ)

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FARMWORKERS IN RURAL AMERICA, 1971–1972

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HEARINGS

BEFORE THE

SUBCOMMITTEE ON MIGRATORY LABOR

OF THE

COMMITTEE ON
LABOR AND PUBLIC WELFARE
UNITED STATES SENATE

NINETY-SECOND CONGRESS

FIRST AND SECOND SESSIONS

ON

LAND OWNERSHIP, USE, AND DISTRIBUTION

JANUARY 11, 1972
SAN FRANCISCO, CALIF.

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PART 3A

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FORMAT OF HEARINGS ON FARMWORKERS IN RURAL AMERICA

The Subcommittee on Migratory Labor conducted public hearings in Washington, D.C., and in San Francisco and Fresno, Calif., during the 92d Congress on "Farmworkers in Rural America." These hearings are contained in the following parts:

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Part 1: Farmworkers in Rural Poverty	**July 22, September 21 and 22, 1971.**
Part 2: Who Owns the Land?	**November 5, 1971.**
Part 3: Land Ownership, Use, and Distribution:	
A. San Francisco	**January 11, 1972.**
B. Fresno	**January 12, 1972.**
C. San Francisco	**January 13, 1972.**
Part 4: Role of Land-Grant Colleges:	
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FARMWORKERS IN RURAL AMERICA, 1971–1972

(Land Ownership, Use, and Distribution)

TUESDAY, JANUARY 11, 1972

U.S. SENATE,
SUBCOMMITTEE ON MIGRATORY LABOR OF THE
COMMITTEE ON LABOR AND PUBLIC WELFARE,
San Francisco, Calif.

The subcommittee met, pursuant to notice, at 9 a.m. in the Ceremonial Courtroom, 19th floor, Federal Building, 450 Golden Gate Avenue, Hon. Adlai E. Stevenson III, of Illinois (chairman of the subcommittee), presiding.

Present: Senator Adlai E. Stevenson III.

Staff members present: Boren Chertkov, majority counsel; Eugene Mittelman, minority counsel; Basil Condos, professional staff member; and Julia Weatherman, staff member.

Senator STEVENSON. The Senate Subcommittee on Migratory Labor will come to order.

This is the first of 3 days of hearings that the subcommittee is holding in California. We are continuing a series of hearings held by this subcommittee which began early last year and will go on beyond this hearing.

I would like to say at the outset that we will keep the hearing record open if anybody here, including the witnesses who are scheduled to appear here today, would care to add statements or comment after the hearings. Those statements and materials will be welcome.

I will leave the record open also for the purpose of asking more questions of my own, and we will include the responses.

I am very grateful to all of those who have accepted our invitation to take part in these hearings. We have sought testimony on a broad range of subjects pertinent to our inquiry, and we have made an earnest effort to assure that divergent interests have an opportunity to be heard.

For the past 6 months, and longer, the subcommittee has been asking questions about rural Americans, farmers and farmworkers, and the land on which they live.

Our inquiry has brought us face to face with the vast change which has taken place in rural America, a revolutionary change which, until recently, had gone unnoticed by most Americans.

Even those who have noticed it have not fully understood it. Often, in speaking of life in rural America, we resort to statistics, and the figures sometimes disguise as much as they reveal. They tell us, for example, that Americans in great numbers have been leaving the farms and moving to the cities. But the numbers do not capture the hidden meaning of the rural migration, the ruined hopes, deserted homes, a dying way of life.

The American dream, whatever else it may mean, has always had something to do with free men tilling their own soil, prosperous, independent citizens in control of their own lives, enjoying a full and fair return for their hard work.

The dream goes a long way back. Thomas Jefferson was its most eloquent champion. But it is still very much a part of our image of ourselves. Most of us still believe or want to believe that a man of modest means can survive and prosper by his own toil on land he calls his own.

There are some these days who consider that version of the American dream quaint, if not obsolete, like the buggy-whip or the pot-bellied stove. They call themselves realists. They are devoted to progress and efficiency. They advance a new sort of ideal for rural America which emphasizes bigness and economies of scale. They do not mourn the passing of the family farm and the small town. They tell us that, today, the earlier version of the American dream is little more than a nostalgic fantasy.

But I am not so sure. I am not ready to abandon that old dream until we study the alternatives, until we examine the new way of rural life admired by these so-called realists.

If reality must mean bankruptcy and frustration for the family farmer and the farmworker, what price reality?

If progress in rural America means hunger, disease and malnutrition, poor medical care and low educational standards, bad housing and decaying communities, then what price progress?

If efficiency means that we must have a permanent underclass of migrant workers, depressed and dispossessed, what price efficiency?

If economies of scale mean that our cities must bear the pressure of rural outmigration, with its burden of welfare payments, unemployment and social tension, then we can rightly ask if reality is worth what it is costing us.

We are concerned in these hearings about the human story which lies behind the statistics of rural change.

Since World War II, the number of farms in America has declined from 5.9 million to 2.9 million. Fewer and fewer people, or businesses, own more and more land.

In California, for example, 3.7 million acres of farmland are now owned by 45 corporate farms; one corporation, Tenneco, controls more than a million acres in California. Nearly half the agricultural land in this State is owned by a small fraction of the population.

More than half the land area of the State of Maine, 52 percent, is said to be owned by about 12 corporations, and 80 percent of Maine's land area, by one estimate, is held by absentee owners.

In 1969 the largest 40,000 farms in America, less than 2 percent of the total number of farms, accounted for more than one-third of all farm sales.

In 1960 only 1 percent of Florida's citrus lands were held by large farming-canning corporations. Now, fully 20 percent of those lands are in such ownership.

Farmer Jones and Farmer Smith, those durable figures in American folklore and American reality, are being displaced all over America by newcomers to the farms with names like Tenneco, Gulf

& Western, Goodyear, Monsanto, Union Carbide, Kaiser, Boeing, and Dow Chemical, to name a few.

Meanwhile, one and a half million family farmers are struggling for survival and a million migrant workers are living in poverty.

In the face of figures like these, I think it is important that we ask some questions:

What is the real meaning of this vast change? Are we promoting, in the name of efficiency and progress, the disappearance of the independent farmer, the decline of rural life?

What is efficient, the family farmer working his own soil or the agribusiness hiring farm workers to man its machines?

What is the meaning, in human terms, of a radical new pattern of land ownership? Are large corporate owners enhancing the quality of rural life, or ignoring it in a headlong quest for profits?

Is the U.S. Department of Agriculture living up to its self-declared moral and legal responsibility to farmers and farm workers? Or is it through indifference or design or soulless realism, abetting the destruction of the family farm and of farm families?

Is the public policy benefitting the public, or do farm subsidies, tax breaks, wage laws, land reclamation projects and agricultural research work to the special advantage of the biggest and richest farmers?

If that is the sum total of U.S. farm policy, we must face the fact that we are not helping farmers, we are subsidizing Simon Legree.

Beyond these questions lie questions about the kind of America we are building:

Will it consist of teeming, troubled cities, on the one hand, and a wasted rural landscape, on the other?

Will a citizen in the America we are building be able to find a decent, independent life in a small town or on his own farm land, or will he be a nameless worker in a vast food-processing combine, managed by a corporate owner?

Will rural America be dominated by its own citizens, or by absentees who care greatly about profits and only vaguely about the quality of rural schools, rural hospitals and rural life?

Will the goal of public policy be a decent standard of living for all Americans, or simply a higher level of profits for some?

Not too many years ago we were a largely agricultural Nation. The experience of rural Americans was the experience of a majority. A generation ago, when economic disaster struck, John Steinbeck was there to sketch the devastation of the rural poor in unforgettable detail. Walker Evans took his camera down the back roads of America and fixed in the American mind his stark gray images of empty houses, deserted farms, and rusting plows.

Now we live in cities. When we leave them, we race to our destinations in airplanes or on superhighways. What is happening in rural America, much of it, happens out of our sight and hearing. Rural Americans, no longer a majority, have lost voices which once spoke for them.

But the fate of the country is still bound up intimately with their fate. The plight of our cities arises almost directly from their plight. All of us have a responsibility to concern ourselves with the questions which are facing them.

Our purpose is to find a national policy whose effect is not simply efficiency or progress or economy of scale, but a decent life for all rural Americans.

In pursuit of such a policy, we are asking questions:

What is happening in rural America? Why is it happening? Who is responsible?

To begin with, we must ask who owns rural America, and so far in these hearings, it appears that no one in America knows.

Our first witness is Mr. Berge Bulbulian, a farmer from Sanger, Calif.

I hope, Mr. Bulbulian, that you will tell us this morning a little about the history of your family's involvement in farming, the frugality of hard work, perseverance, success, and whether that story is possible now.

STATEMENT OF BERGE BULBULIAN, FARMER, SANGER, CALIF.

Mr. BULBULIAN. Thank you, Senator.

I could very briefly say, "Hear, hear" to what you said, but I will go ahead.

I am speaking today as a private citizen and also on behalf of the National Coalition for Land Reform. This is a new organization we have just started here in the West. We hope it will grow over the next few years to include forward-looking citizens in the South, the East, and the Midwest. We hope that among those who will join the coalition are small farmers, farm workers, city workers, minority groups, young people, persons concerned about the environment, and all citizens who believe that America must be something more than a happy hunting ground for giant corporations.

Our coalition hopes through educational, legal, and political action to preserve and strengthen the voice of the independent citizen in America, to ease poverty in both rural areas and in the cities, to encourage population dispersal in such a way that more people can live decently off the land without destroying it and to redirect Government policies so that they help workers of the land rather than absentee owners.

Our family has been farming since 1929 and my father, who is 79 years old, and I farm 150 acres of wine and raisin grapes in Fresno County. In spite of his advanced age my father still is actively involved in the day-to-day operation of our farm. Together we do all the work we can and hire only that which we cannot do ourselves. He came to this country from Armenia in 1920 after the massacres by the Turks and did various forms of labor, including farm labor, until he was able to save enough money to make a down payment on 20 acres of vineyard. He has had a total of 4 years of schooling and my mother, who is deceased, was illiterate. In spite of my parents' lack of education, we were able to progress in the business of farming and today we earn a very satisfactory living. We have been able to progress from illiteracy to a university degree in one generation. Two of my children are now in college and the third will be in the fall.

The point I am trying to make is that it has been possible for a man with a meager education, at best, to become self-sufficient and attain a measure of success. Today, his accomplishment, however modest, can be attained with difficulty, if at all. The family farm is disappearing from the agricultural scene and being replaced by corporate conglomerates who have no particular love for the land but are involved for investment purposes. Obviously, no semiliterate farmworker would, in his wildest dreams, dream of owning a major land holding. This is not surprising, nor is it particularly a problem. What is a problem is that he cannot even dream of owning a small piece of land. A 40-acre vineyard sells for approximately $80,000 in my area, with about $24,000 needed for a down payment plus the cash or credit to farm and live through one crop year, at least. On such a farm one can expect to earn a meager living at best if he has to pay interest and principal but can survive if he owns the farm outright. It would take at least 80 acres of grapes to farm with some degree of efficiency to earn a satisfactory living. In short, the ambitions of people like my father were often realized in the 1920's and 1930's, but today no young man who is not a part of a farm family dreams of owning a piece of land, big or small. It is simply an unrealistic dream.

If America is to survive and prosper, this situation must be remedied. The flow of people from the farm to the city must be stemmed and, indeed, reversed. There is no longer either room nor need for more people in our cities. Much of our pollution problem is caused by concentration of people and every effort must be expended to deconcentrate populations. This can be done only by upgrading conditions on the farm and making it possible for the millions still employed there to remain on the farm and live a life of dignity. Farm people, whether they are employees or employers, must be able to remain on the farm out of choice and not necessity. Impossible? No. Difficult? Yes. But aren't most of the problems we face today?

Probably the biggest obstacle we face in our struggle to save the family farm is the attitude of many Americans, including some farm people, that the family farm is obsolete, it is inefficient, and, therefore, unable to compete with the efficient and well-financed conglomerates. Well financed they are, but efficient they are not. I challenge any giant agribusiness corporation to match my efficiency. There is no way a large concern with various levels of bureaucracy and managed by absentee owners can compete in terms of true efficiency with a small, owner-operated concern. I cannot hire anyone to perform with the level of competence and efficiency that I perform. I seldom do one job at a time, but often two and three jobs simultaneously. While driving the tractor I watch for other things that need to be done. I watch for pests, for nutrient or water deficiency and generally consider management problems while doing a purely physical job. I work long hours each day and seldom have even a Sunday completely without work.

I am the manager, personnel director, equipment operator, maintenance man, bookkeeper, laborer, welder, and so on. When I do hire labor, I usually work with them. I can afford to buy any equipment ever built, which will lower my cost of operation. I have never failed to secure the capital needed to make purchases of land or equipment.

With 150 acres of vineyard, I believe that we are at or near the optimum level of operation for our type of farming. No, I can't sell for a loss and make it up in taxes, nor can I lose on the farming end of the business and make it up at another level as a vertically integrated operation can, and I happen to market many of my crops, too, through a cooperative, so to some extent I have attempted to cash in on integration, but certainly not to the extent giant farmers do.

I have no political clout and lobbying to me means writing a letter to my Congressman or Senator. But that is not what efficiency is all about.

Efficiency has to do with the relation between input and output. No, the big agri-business firms are not efficient except in farming the government, and, even if they were, do you think that this efficiency will be translated into lower prices to the consumer when and if a small handful of agri-business giants control agriculture? And if they do give you food for a lower price, what about the social costs involved in the out-migration of people from the rural farms and towns? There are many costs that must be considered and most of them will not be paid at the corner supermarket.

While there are no panaceas, there are solutions to the problem. I propose that we pursue a plan of land reform, yes, land reform. We have preached its efficacy for other countries, in Latin America, in Southeast Asia, et cetera, but for our own country it has been viewed with alarm. The cry for land reform dates back to ancient times and is not even a new concept in our own country.

We have on the legislative books an excellent piece of legislation which I believe was meant by its framers as a vehicle for land reform, but it has been anything but that. I am referring to the Reclamation Act, the so-called 160-acre limitation.

The Reclamation Act provides that no one will receive more water than is required to irrigate 160 acres from any federally financed irrigation project. A couple can farm 320 acres under this law and irrigate it with subsidized water, substantially more land than it takes our two families to earn a good living. Any land in excess of the 160 acres per person must be sold within 10 years for the price of land, not to include the value of the subsidized water.

Unfortunately, the law has been enforced with less than complete devotion to law and order. Vast acreages in the State portion of the combined State-Federal water project in the west side of the San Joaquin Valley are or will be irrigated with no limitation in force, a situation which three other farmers and I are trying to remedy with a suit against the State and Federal Governments.

In the Federal portion of this project contracts are being signed with the Department of Interior which provide for the eventual sale of the excess land, but in many cases the land is being assessed at too high a price. First these giants of agriculture—and there is not much sweat-of-the-brow type of land acquisition there—used their political muscle to get the best terms they could in terms of repayment, then they delayed the signing of contracts as long as they could on technical grounds, and then they received land assessments too high to conform to the spirit of the law, and then they will continue to farm the land for an indefinite period of time, in many cases not just 10 years, for there will be few, if any, buyers in parcels which will conform to the law, less than 160 acres per person.

I propose that the Federal Government acquire this land at realistic prices which conform to the law and sell it to qualified buyers with long-term, no-interest loans. Yes, no-interest, not low interest, for the present landowners are being provided with water with similar terms. The buyers may be farmworkers who want to have the pride of owning the land they work. They could be city people who are tired of the compression chamber that is the modern city. The parcels may be privately owned and operated by individuals; they may be larger units farmed cooperatively. It may even be necessary to provide these new landowners with technical assistance through a program similar to VISTA and the Peace Corps. We have provided technical assistance to much of the world; it should not be too much of a strain to provide it for our own people.

I propose a major overhaul of our tax structure which is now supporting and encouraging the conglomerates to invade the field of agriculture. Under present laws, they need not make money in farming and, indeed, can afford to lose large sums of money in farming and still profit on their overall operation. Professional people are encouraged to buy land not for farming but for speculation. They make no contribution to the land or society, but they do profit. We put a greater value on the income from money than we do the income from labor, for we tax labor at a higher rate than we do the gain on the purchase and sale of property. We must change the law so that each business is taxed separately so that farm losses cannot be offset by profits in other businesses. We must do away with the capital gains tax. Put the giant corporate farms on the same level we family farms operate and we will see who is efficient and who is not.

In any event, efficiency is not the problem. American agriculture has been all too efficient already.

I propose a thorough investigation of all corporate conglomerates in agriculture and other giant farming and processing firms to determine if their operations are legal within the framework of antitrust laws.

In our own area an investigation of Tenneco and the Gallo Wine Co. are certainly in order. Many wine grape growers who have been traditional Gallo suppliers were unable to sell their crops this year in spite of ever-increasing demands for wine. Rumors were rampant in the field that there was some kind of agreement between Tenneco and Gallo that caused these problems. These rumors may well be unfounded, but certainly grape growers in the San Joaquin Valley who are alarmed by the heavy planting of grapes by conglomerates and other investors are entitled to know the facts as uncovered by objective investigators. Similar conditions probably exist in other commodity areas.

Karl Marx wrote of a class-structured society in which the classes would eventually conflict. Here in America we have felt that this situation would not prevail. We are now rapidly moving toward a socioeconomic milieu with an elite propertied class, a professional class, and a class of uneducated, unemployed or underemployed hardcore poor which is ever increasing in numbers, The free enterprise system is probably even now more of a "closed enterprise system," in Ralph Nader's words. Must we continue to work to make Marx' prophecies come true, or will we strive to solve our problems with at least as much respect for people as we have shown for money and property?

To me the choice is clear. Let us solve the problems in rural America, difficult though they may be, before they spawn even more difficult problems elsewhere. If we don't solve these problems, perhaps we should change the inscription on the Statue of Liberty from the now-present, "Give me your tired, your poor," and so on, to something like this, "Keep out, enterprise closed."

Senator Stevenson. When did your father buy land after coming to these shores from Armenia?

Mr. Bulbulian. He came in 1920 and bought the farm in 1929, the first 20 acres.

Senator Stevenson. Where was that, in the San Joaquin Valley?

Mr. Bulbulian. Yes. Near the small town of Del Rey in Fresno County.

Senator Stevenson. He bought 20 acres, you say. Could he support himself on 20 acres?

Mr. Bulbulian. Not with just 20, no. He did farm labor even then.

Senator Stevenson. How much did the 20 acres cost?

Mr. Bulbulian. As I recall, about $5,000.

Senator Stevenson. And you testified that the price of similar land would now be roughly $2,000 per acre?

Mr. Bulbulian. In our area, yes, and more.

Senator Stevenson. If he arrived on these shores today, penniless, a farmer, could he get started, could he buy land to support himself?

Mr. Bulbulian. No. We have great difficulty ever saving enough money to make a downpayment, even considering how conservative my father was with money then and even now.

Senator Stevenson. It is hard to get started in farming?

Mr. Bulbulian. It is impossible to get started, not hard.

Senator Stevenson. Once started, whether through inheritance or however it is you come by the land, it is hard to stay in farming, too, isn't it?

For example, you said that the small farmer is more efficient than the large farmer. If that is so, if he can produce more efficiently than the corporation, then why can't he survive in our free enterprise system?

Mr. Bulbulian. There are a number of market problems and, of course, the problems I cited here, the tax problems which make it difficult for him to compete with a situation that is not really fair competition. I think he could compete very, very easily if everybody in agriculture were in it for a profit, but many people aren't.

Certainly, I am not saying a 20-acre farmer of 1929 or 1930 period could make it today. Even then, he couldn't make it on that small an acreage.

Senator Stevenson. One of the points you are making is that the family farmer now has to compete with corporate farmers who don't have to make a profit in order to survive, that is what you call tax-loss farming?

Mr. Bulbulian. That situation prevails now.

It does take a little more land, but certainly not the thuosands of acres the conglomerates want.

Senator Stevenson. It takes more land and it takes more equipment.

Mr. BULBULIAN. Indeed.

Senator STEVENSON. And it takes more credit to acquire the equipment as well as the land. Is that one of the problems?

Mr. BULBULIAN. Yes. You very often have to live through perhaps 2 crop years before you get your return, especially if you are marketing through a co-op as we do. I still am not paid off on the 1969 crop of raisins and we probably won't be for several more months. So we are talking about at least a 2-year investment in the crop.

Senator STEVENSON. I don't suppose the large corporations have much difficulty obtaining the necessary credit at a reasonable rate. You say the cost of credit is lower for the larger corporation than it is for the family farmer?

Mr. BULBULIAN. Indeed. The price of interest is higher for the smaller borrowers.

Senator STEVENSON. Continuing on the assumption that the little fellow, the family farmer, is a more efficient producer, he can produce at a lower cost than the large fellow, are there other policies of the Government or activities of governmental agencies which discriminate against him to the advantage of the large corporation? The Labor Department's Farm Labor Service, for example? Do they help the little fellow as much as the large corporation?

Mr. BULBULIAN. I can answer from personal experience to the latter part of that question. Rarely, if ever, am I able to get any help from the Farm Labor Service except when I don't need it.

Senator STEVENSON. Except when you don't need it?

Mr. BULBULIAN. Right. When I do need it, they don't have any labor. So I don't even bother in most cases, except to kid myself I have done something to try to find some labor. As far as I am personally concerned, and this would probably be true of a number of other farmers in my area, they could probably close up the Farm Labor Service and we wouldn't miss it.

In addition to the first part of your question, I think much of the research of the University of California is aimed at the large farm. I think they have already sold out to the idea that the small farmer is down the drain, so they had better think of research for the large landowner.

An example, there will be an implement show in Tulare next month and one of the topics that will be discussed, along with the showing of the implements, if I remember the exact terms, "Substitution of Capital for Labor." Much of the machinery that will be shown at this show, some of which was developed by university research, is aimed at extremely large operations and certainly not the small, efficient, family sized operation.

Senator STEVENSON. You mentioned university research. Do you have any opinions about the activities of Land Grant Colleges and whom those activities primarily benefit?

Mr. BULBULIAN. On this short notice, no specific opinion, unfortunately.

Another point I would like to make, Senator, is that I think the free enterprise system does not imply merely the right to get bigger; it should imply the right to get started. I think that situation no longer prevails in agriculture.

Senator STEVENSON. You made that point very eloquently, Mr. Bulbulian, in your statement. And I think it is a most significant aspect of our subcommittee investigation. You have pinpointed many issues that I am hopeful will be discussed by other persons as we proceed. I appreciate your help.

Thank you very much for appearing here this morning.

Senator STEVENSON. Our next witnesses are Mr. George Ballis, a journalist from Fresno; Mr. Harry Miller, an attorney from San Francisco, and a consultant to Ralph Nader; and Mr. Al Krebs originally of California and now with the Agribusiness Accountability Project in Washington, D.C.

These gentlemen will form a panel to discuss ownership of land in California and the Nation, the difficulties that we have in simply finding out who owns the land, and about the implications of the continuing trend toward ever-higher concentration of land and economic and political power in agriculture.

Please proceed in any order you like.

Mr. MILLER. I have a general summary of the problem, and I think these two gentlemen can give some illustration that would amplify this background.

STATEMENT OF HARRY MILLER, ATTORNEY, SAN FRANCISCO, CALIF.

Mr. MILLER. I might say that, while I am glad the subcommittee is here, since the main concern of the hearing is located outside of San Francisco, you should spend as much time as possible in the agricultural regions of the State, and I am glad you are going there. I myself am not from there and am not representive of its problems; if anything, I represent the urban consumer of the products of the land.

The work that I did on the Nader study took place in 1970. I did it as a concerned citizen, mainly concerned about the developments in the State relating to land use, but not necessarily agricultural land.

One of the main questions we started out with was who owns the land in California. It seemed a worthwhile starting point. There were some debates on whether we should go into making an inventory of this material, and we decided to go ahead and do so.

One of the reasons we decided to go ahead and do so was that it was so very hard to come by any reasonable estimates or indications of who owns the land and how the land was being used. We all knew it was being used in a way that concerned and even aggravated us, otherwise, we wouldn't have been involved in a study. So we set out to do this end, as I say, one of the most remarkable aspects of it was that there was really no single source or even a number of sources of this information, and it was particularly discouraging to find that the regulatory bodies of local, State, and Federal Government knew virtually nothing about this very important economic ingredient of our lives, namely, land, that is, its ownership and its use. Those who had knowledge and information had great qualms about making any of it available.

I would refer to the USDA which has information about the acreage of the recipients of subsidies which seems to be very pertinent to the public interest; but since they had classified it as a trade secret, it was unavailable to us under the Freedom of Information Act, according to them.

Because we were in a hurry to get our study together, we don't have a chance to make a court test of that designation. But it does illustrate the attitude on the part of the people who are supposed to be regulating in the public interest, that they are not willing to cooperate with inquiries concerning the effectiveness of that regulation.

Senator **Stevenson**. You are talking about the USDA, the Department of Agriculture?

Mr. **Miller**. Yes.

Senator **Stevenson**. Why wouldn't they have every reason to be cooperative? What reason would they have to conceal information from you?

Mr. **Miller**. I happen to use the Nader analysis of the problem, which is that they are controlled by the agribusiness lobbies, and the agribusiness lobbies get away with what they get away with by keeping it as much in the dark as possible. I think that, frankly, is the explanation why the USDA was hiding this and giving us a lot of trouble about finding out pertinent facts concerning the use of land and ownership.

Senator **Stevenson**. Does the USDA know who owns the land in California or how much the corporations own?

Mr. **Miller**. Yes, they certainly do. They know who the receivers of subsidiaries are, what the acreage is for the calculation of subsidy and so on.

Senator **Stevenson**. But not all farmers, including corporate farmers in California, receive crop subsidies. Probably possibly fewer receive them in this State than in other States?

Mr. **Miller**. Yes.

So we had this problem of information and knowledge. Another potential source was the State utilities commission. There is absolutely no reason why the State utilities commission shouldn't have at hand information about acreage under the control of utilities, to make sure the utilities are using the land according to the mandates under which they operate, namely, to provide the public services that they are charged with providing. However, the same condition exists. They have a rough idea, in terms of dollar value, how much land is in a given utility's portfolio. They have no idea how it is being used.

The SEC has made a very interesting inquiry into one of the utilities in the State which has diversified into corporate land holding, agribusiness, and a number of fields completely unrelated to provision of electricity and gas. I don't know exactly what the conclusion of this investigation is going to be, but the utility has obviously strayed far away from its mandate and the terms of its exemption from the Public Utility Holding Company Act.

Coincidentally, the company found its diversifications into land very lucrative. That is why they went into it. The stock began to rise because the analysts began to see that the tax-loss farming was going to improve their income. Another very interesting incident is that this utility has apparently cornered the market in pistachio nut production and they were going to be able to use their monopoly position to exact monopolistic profits. That is an instance of the motivation behind this movement of corporations, conglomerates, into agriculture. It is a very easy way of carving out a natural monopoly. If you have a piece of land suitable only for growing pistachio nuts and you can quietly go in and buy out all of the farmers trying to eke out a living on small acreage and combine it, then the world is yours.

Senator Stevenson. Before we move off the point, you said that at the Federal level, USDA either won't tell you or doesn't know about the ownership of land by corporations. You have said now, if I understand you, there are no governmental agencies in the State of California to provide you with this information. Even the regulatory agencies don't have facts in the case of their regulated industries, is that right?

Mr. Miller. That is precisely the point I am making.

Senator Stevenson. Have you tried the Census Bureau, or the agricultural census in progress? Does that agency have the information on land ownership by corporations?

Mr. Miller. We did this work in 1970, in the summer, and we had a limited amount of time to get the information together. I don't recall personally having made any contact with the Census Bureau. We went to the people who had the information that we felt—well, we went to organizations we felt would be most likely, because of their duties, to have the informtaion.

The Census Bureau seemed to us such a general source that they might have it, but then they might not. So we might as well go to the primary responsible agency, a utility commission with respect to utilities, the USDA with respect to subsidy receivers, and so on.

Senator Stevenson. I think your assumption that they might not have the information is a reasonable one. The Census Bureau, too, does not have the information; they don't know who owns the land.

Mr. Miller. I don't see any reason why they shouldn't know. But inasmuch as there is a great reluctance on the Census Bureau's part to make an adequate inventory even of human beings in this country, a great deal of complaint from minority groups in California who feel they were completely slighted and undercounted in the Census, I don't know that, at this stage, we can expect them to do a much more adequate job on agriculture.

But this is the first time that the spotlight has been turned on on agriculture in California. I think it is very healthy phenomenon because in bringing to light these deficiencies in our knowledge, at least, we can piece them together, as we tried to do with the Nader report.

I have to say we didn't go around in various counties and make inventories.

Senator Stevenson. Would that be possible?

Mr. Miller. It would be possible, yes. It wouldn't be practical, I think.

Senator Stevenson. It would be impossible in my State of Illinois because of the use of land trusts. Ownership of land is commonly concealed for this reason in Illinois. I don't know about other States.

Mr. MILLER. It's happened here, but I think it is probably less common, and we tried to use certain deductive techniques in our own survey. We used secondary sources such as Metzger's map, on which ownership is plotted, in counties where one entity controls large units of land. Secondly, we used the assessor's offices to the extent we could. Assessors don't keep records from which figures on ownership and use are readily derived; but sometimes old hands in the offices, just as a matter of common knowledge, have this information at their fingertips and would share it with you. There is certainly no statutory obligation for them to do it; it is just the question of familiarity.

Then we sent around a number of questionnaires to which we got some very interesting answers. The first question we asked people was what acreage they owned. We developed a list of landholders from various registers and indexes. Most of the first questionnaires came back unanswered, so we tried to make our questions more specific by giving a figure which was our best estimate, based on all we knew about an individual or a company, the land they owned, and asked them to verify. We got better results with that, and a lot of our data checked out what we got from the secondary sources.

So the general picture that emerged was one of concentration. We found that 25 corporations owned 14 percent of the privately-owned land of the State. We came out with 29 corporations owning 21 percent of the cropland of the State. There are about 12 million acres of cropland. Actually, there was a USDA survey of corporate farms that indicated that they owned an even higher percentage; 45 corporate farms owned 61 percent of the prime farmland in the State. So there is a great deal of concentration existing at the moment and, on top of that, there seems to be a trend steadily increasing over the last decade.

The second characteristic of ownership was the fact that the new owners who have concentrated the land into their hands seem to be large corporate owners. That is something you mentioned in your opening statement, and I won't go into that in greater detail.

Senator STEVENSON. Is the corporate ownership of land principally in fruits and vegetables, as opposed to feed grain, cotton, and other crops?

Mr. MILLER. That is a question that I can't answer offhand, I don't know. My impression is that the corporate ownership is evenly distributed because you have probably a situation where it is greater in the grains and the other cash crops such as cotton, sugar, and so on, because you have to have a larger basic unit to reach minimum efficiency. It is only around 700 acres, as opposed to 100 acres in the vegetables and fruits.

Senator STEVENSON. If you could furnish us at some point with further information on the distribution of the pattern of corporation ownership according to activity in agriculture, it might be helpful.

Another aspect of your testimony that I believe should be reflected in our hearing record is that when we talk about corporate ownership, we are not talking about the family corporation, we are talking about the big corporations and conglomerates.

Mr. Miller. That is an important distinction to make, and we have a statistic on that which indicated that of the corporate ownership over half was by corporations that had most of their business in other fields than agriculture. So there is a very heavy incidence of ownership by the conglomerate corporation which is operating primarily in industrial and or commercial fields and secondarily in agriculture. I will submit for the record an excerpt from page II–50 of the Nader report, which indicates some of the statistics you need.

(The information referred to follows:)

(Excerpt from page II-50 of the Nader report)

The results were released in December of 1970 in "A Statistical Profile of California Corporate Farms," cited in Chapter I, above. The findings revealed an extraordinary and increasing share of California's agriculture in corporate hands. Table 21 indicates that from one fourth to one third of cropland production from California's 57,289 total farms comes from 1,673 corporate farms. Corporate farms account for 35.6% of California's corn, 29.5% of all other grains, 32.5% of potatoes, 29.5% of sugar beets, 23.2% of strawberries, 38.4% of cotton, 29.9% of citrus, 24.2% of tomatoes, 62.3% of lettuce, 89.2% of melons, 34.6% of carrots, etc. These levels have steadily increased. They now control 6.1 million acres, according to the Report's estimate.

More important, though, is the nature of the new corporate farm. First, 46.4% of California's agricultural corporations operate farms in two states or more. Twenty-five percent operate them in four states or more. Second, 20% of the corporations do more than farm. Significantly, this 20% controls one half of the acreage held by corporate farms. 267,000 acres are held by corporations engaging in agribusiness on the side, averaging 2,453 acres per farm. Those engaged in other business unrelated to agriculture hold 2,384,000 acres and average 16,553 acres. An additional small number are engaged both in agribusiness and other non-farm related business. Corporate farms engaged in just farming hold 2,866,000 acres, averaging 2,293 acres. Further, those corporations confined to farming rent one half of their land. Those engaged in other business rent less than 15% of their land and own the remainder. Third, 39% of farming corporations are controlled by another corporation or by unrelated individuals ("Other Controlled). Once again, this 39% non-family group is much larger in size, averaging 8,481 acres as opposed to 2,924 acres per family controlled farm and 1,690 acres per individual controlled farm. The "other controlled" farm accounts for about 40% of corporate crop production from fewer and larger farms. ("Other controlled" farms are larger for eighteen of the twenty-four crops surveyed.) "Other controlled" farms account for 34% of California's corporate farm cattle production, 64% of its beef cows, 55% of yearling cattle and substantial percentages of milk cows, hogs, sows, broilers, hens, turkey and sheep.

In summary, the once minor involvement of the conglomerate farming corporation is minor no longer. Corporations engaged in other business enterprises and controlled by unrelated individuals or other corporations now hold substantial acreage and account for substantial shares of crop and livestock production. They own most of the land they farm, with much larger than average farms. ~~They also average~~

Mr. MILLER. Concurrently with this trend in ownership, there is also a loss of the prime agricultural land at a very quick rate in the State here. Now, that is a fact that has created a great deal of dispute among the people of the Nader Task Force. Some people don't think it is too serious a problem: The State has a lot of prime agricultural land, and there is no scarcity factor here, and so on.

My own impression is that it is probably a very adverse factor, because what happens is you have the production being pushed into marginal soils. It means that greater economic costs are developed in developing this marginal soil and there are human costs in the sense that more fertilizers, chemical fertilizers, and pesticides, have to be used to get this marginal land into production. So I think that is also an adverse development.

I don't know what your subcommittee or the Federal Government can do about that. One of the things I think is that the subsidies which encourage this corporate movement into agriculture should denfinitely be curtailed. One of the subsidies that has made it attractive to push production into the marginal areas is the water subsidy. It is a combination of subsidies——

Senator STEVENSON. By water subsidies, you mean among other things, the failure to enforce the 160-acre limitation?

Mr. MILLER. Yes. The subsidies and the tax structure are really the cause for the corporation to be interested in agriculture. They are really interested in land. I can't say they are interested in agriculture; agriculture is an endeavor on land, it is attractive to them, but most of them are holding this land for speculative purposes. Sooner or later they would like to turn it over and reap the speculator's profits on the land.

Senator STEVENSON. Did you also examine in your studies the invasion of rural America by corporations with other purposes, namely, the exploitation of timber and mineral resources, or the development of recreational facilities?

Mr. MILLER. Yes. We have a lot of material on that in the Nader report on power and land in California. It is a fact that the corporate developers and subdividers have moved into the countryside of California and bought it up and tried to subdivide it. They subdivided over 100,000 acres and there are probably less than 2,000 buildings that have been built on these lots. This is being reflected in the marketplace now. The result is the massive decline and lack of confidence in the recreational home builders, such as Boise Cascade, and that has its own problems, because they have been pushed to more and more extravagant sales techniques, extravagant financing techniques.

As far as the quality of the land goes, my impression is that, by and large, speculative pressure has been concentrated more in land that will have a trade-off value in recreation, as opposed to agriculture.

Mr. Chairman, at this point I would like to submit for the record a selection of materials from the Nader Report on Power and Land in California, together with an analysis by Mary Claire Clark of sociological patterns on various types of California farms.

(The information referred to, except for the excerpts from the Nader report, which appear in the appendix, follows:)

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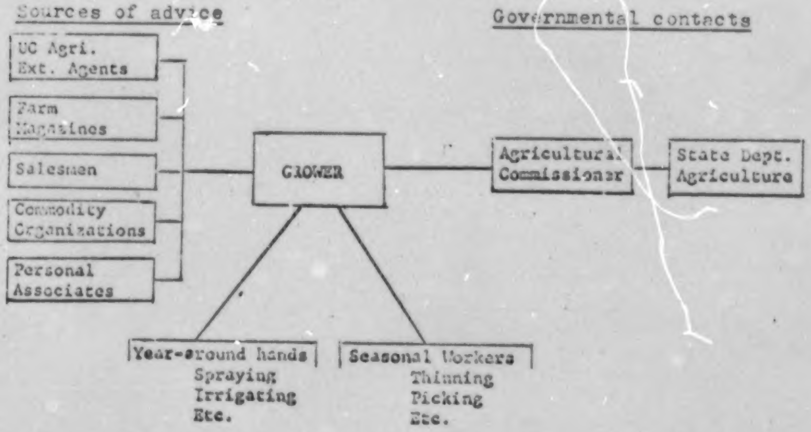
BACKGROUND ON SOCOLOGICAL PATTERNS OF CALIFORNIA FARMS

(By Mary Claire Clark, associate of Ralph Nader's Center for the study of responsive law and member of the California Power and Land Project; Berkeley, Calif.)

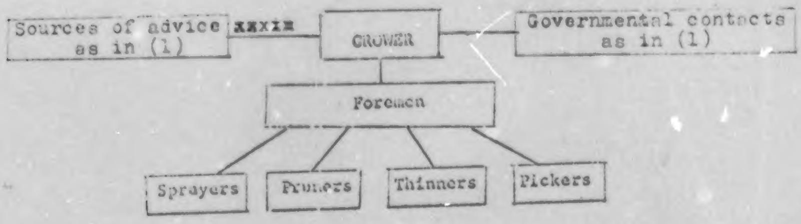
In order to understand California agriculture, it is necessary first to understand something about California farms. Many urban dwellers, including most politicians, ~~kaitexaxihat~~ are unaware of the many different kinds of farms found in the state. Described below are a few ~~xfxikxxzxpza xfxiarasxaxfia~~ examples of California farms. Even this view is too simple. The number of variations on these patterns must be almost as great as the number of farms in the state.

1. The traditional "family farm"


Sources of advice
Governmental contacts
UC Agri. Ext. Agents
Farm Magazines
Salesmen
Commodity Organizations
Personal Associates
GROWER
Agricultural Commissioner
State Dept. Agriculture
Year-around hands
Spraying
Irrigating
Etc.
Seasonal Workers
Thinning
Picking
Etc.

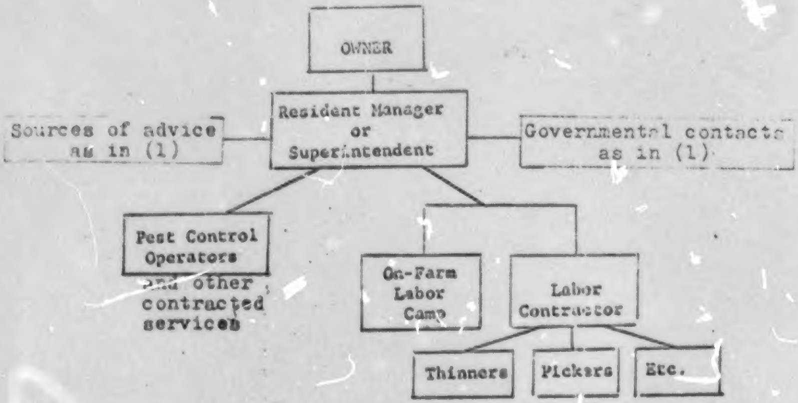
Despite the trend toward "factories in the field", there are still many growers in California whose farm is their castle, who live on the premises and spend many hours driving tractors and other equipment, and who have a personal hand in all phases of their farm's operation. The California Farm Bureau Federation and the State Dept. of Agriculture would have us believe that this kind of farm is almost universal. In one very important way, the American dream of the family farm does not correspond to reality. In the dream, the family farmer is assisted by his sons, who will one day inherit the farm from him. In practice, most farmers' sons have gone away to college or the cities and left the farm forever. The farmer is assisted by a handyman who can do a little of everything that needs to be done throughout the year. The farmer and his handyman hire temporary workers to help during the harvest time. There is little, ~~if any~~, communication between the Spanish-speaking temporary workers, and the farmer and his ~~xxxxx~~ English-speaking permanent hands.

2. Large sole-proprietorFor partnership farm


Sources of advice as in (1) ~~xxxxx~~
GROWER
Governmental contacts as in (1)
Foremen
Sprayers
Pruners
Thinners
Pickers

This pattern is doubtlessly more common than the first. The farm or ranch is larger. The grower still lives on the premises, but cannot maintain personal supervision of all aspects of his operation. He concentrates on certain aspects, primarily sales, and delegates the rest to a foreman or series of foremen answerable to a head foreman or ~~xxxxxxxxx~~ superintendent. The foremen hire temporary workers to cultivate, irrigate, spray, thin, and harvest~~xx~~ the crops. The temporary workers are responsible only to the sub-foreman and have little if any contact with the superintendent, much less the owner himself.

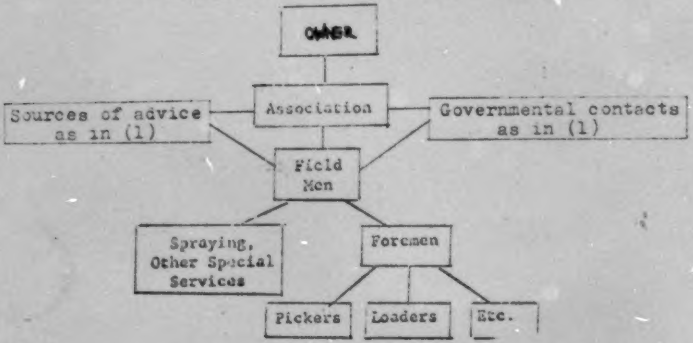
3. Absentee landlord, corporation farm


OWNER
Resident Manager or Superintendent
Sources of advice as in (1)
Governmental contacts as in (1)
Pest Control Operators
and other contracted services
On-Farm Labor Camp
Labor Contractor
Thinners
Pickers
Etc.

The dominating characteristic of this farm is that the owner is not a farmer at all. The land is owned by a doctor, dentist, lawyer, baseball player, or someone else hundreds of miles away as a tax refuge, a place to relax on weekends, and so forth. Or the land may be owned, not by an identifiable individual, but by a corporation or investment company for speculative purposes. The owner has nothing to do with the day-to-day problems of farm operation. He turns all of this over to a manager, who may be full-time and living on the holdings or part-time, managing farms for several absentee landlords at once.

The manager may hire a farm labor contractor to recruit the necessary seasonal workers. The manager does not know and does not care where the contractor recruits the laborers, what kind of people they are, or even how many there are: under the piece-rate system of payment, it is all the same to the manager. Total labor costs are the same whether 25 skilled workers work a full day and make good wages, 50 workers work only half a day, or 75 totally inexperienced workers fumble around and make miserable wages./ There may be a nearly complete turnover in the work force each day. Alternatively, managers with very heavy labor demands may send an agent to the Mexican border to recruit "green carders". These men arrive without their families and are housed and fed on the ranch in army-style barracks. They have almost no contact with the society around them. ~~Thexxxxxxxxhe~~ To date, the owners of corporate farms have been almost totally insulated from the social, health, and ecological implications of their land ownership.

4. "Association"or "Cooperative" farm


OWNER
Association
Sources of advice as in (1)
Governmental contacts as in (1)
Field Men
Spraying, Other Special Services
Foremen
Pickers
Loaders
Etc.

This kind of farm is particularly common in the citrus industry, although almonds, walnuts, avocados, and certain other crops also have strong"Associations" or "Cooperatives," to which landowners may turn over all their responsibilities if they wish. Under this pattern, the absentee owner of an orchard grove in Tulare County, for example, may have the choice of joining the Strathmore Sunkist Association, the Blue Goose Association, or remaining independent. He has no interest in or aptitude for supervising his own orchard, so he signs up with Sunkist. From this moment, every phase of the operation is cared for by the Association: irrigating, pruning, disking, spraying, and marketing. The owner does not need to hire anyone to stay on the farm, or invest in any equipment unless he feels it is to his advantage. At the end of the season Association bookkeepers calculate the value of the services rendered by the Association to this landowner from the price which his fruit has brought in the marketplace, and pay him the difference.

Most of the key decisions in the farm's operation are made by roving field representatives of the Association. They decide when an orchard is ready for picking, and how much is to be picked. (Citrus operates under a pro rate system whereby the price is maintained by releasing only a limited amount of fruit each day throughout the season; see section ____ of this chapter for market orders) The representatives decide when an orchard should be sprayed with pesticides, what it should be sprayed with and the amount.

Crew leaders employed by the Association recruit the necessary seasonal help. A crew leader may take his workers to several different orchards in the same day. The seasonal worker may work for the same crew leader year in and year out. This employment system probably offers the farm worker more stability than the other three. Accurate and frequent communication between the Association's field representatives and the crew leaders, and thus the seasonal workers, is essential to the health and safety of the farm workers in these orchards.

WHO WORKS ON CALIFORNIA'S FARMS?

The 700,000 men, women, and children who labor in California fields are as varied a group, culturally, ethnically, and linguistically, as the population of New York City. In the Imperial Valley, almost all agricultural labor is performed by Mexican men, many of whom commute across the border every day. In certain highly seasonal crops grown in areas farther north, such as cherries in San Joaquin County or peaches in Stanslaus County, there are primarily Caucasians (or "Anglos") working as man-and-wife teams. Perhaps it is Tulare County that includes the most representative cross-section of xxx the xxjxxxgxxxxpx xxxxxx California farm labor force.

Many Filipinos live in the southern end of Tulare County. Teviston is a farm community in the center of the county composed almost entirely of Negroes. In Strathmore, Plainview, and several other places there are sizable enclaves of Anglos many of whom are still working in agriculture after migrating from the Dust Bowl xxxxxx during the 1930's. There are a few American Indians and Puerto Ricans. But the majority of farm workers, in Tulare County as in California and indeed the entire Southwest, are persons of Mexican extraction.

Many of the Mexicans are first generation immigrants: born in Mexico but now living permanently in the U.S. either as naturalized citizens on with visas. Many are second or even third generation: born in the U.S., but unable to move out of the farm labor force becuase of educational disadvantages and the ethnic prejudices of xxxxxxxxxxxxxxxxxxxx society at large. Still others are "green carders;" citizens of Mexico who enter with visas supposedly obligating them to remain in the US, but who in fact return to their families in Mexico three or four months each year. Finally there are a large but indeterminable number of "wetbacks," illegal entrants who are subject to immediate deportation if the Immigration and Naturalization Service takes action against them. Employment of "green carders" and "wetbacks" in California agriculture is discussed in greater detail in the section on labor subsidies to agriculture in California.

Senator **Stevenson**. Fine. Before we hear from Mr. Ballis, we will insert your full statement in the record at this point.

(The prepared statement of Mr. Miller follows:)

TESTIMONY before U.S. Sen. Subcommittee on Migratory Labor
San Francisco, January 11, 1972

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I. Land Ownership, Use and Distribution

Private owners control about 51% of the total area of California. Of the remainder, the federal government owns 44%; the state and local governments, 5%. In the last decade federal holdings have declined about 5%.

A striking feature of private land in California is that so little is known about its ownership, use and distribution. The work of the Nader Team appears to be the first effort to take a systematic inventory. These facts are remarkable in light of the existence of many regulatory bodies for which knowledge of land ownership and use is integral to the discharge of their duties. Chapter One of the Nader Report on Power and Land in California, which is attached hereto as Exhibit A and is incorporated herein by reference, describes the state of information about land ownership and use in greater detail and the methods of the Nader Team used to expand the existing material.

The results of the Nader Team's work, summarized in Exhibit A and presented in detail in the Appendices thereto, which are attached hereto as Exhibit B and are incorporated herein by reference, confirm the trend to concentration of land ownership in the hands of a few corporations that has been observed by others. Twenty-five corporations own at least 14% of the privately owned land of the state; 257 entities control 25%.

High as these figures are, they probably understate the degree of concentration of ownership of agricultural lands. According to the Nader Report, of the 12 million acres of cropland in the state, twenty-nine corporations own 21%; seventy-five corporations own 27%; and 220 entities own 35% on a cumulative basis. By contrast, in its profile of California farms published in 1970 the U.S. Department of Agriculture found that forty-give corporate farms, representing less than one-tenth of one percent of the farms in the state, controlled 61% of the prime farm land.

With respect to commercial forest land in the state, the same pattern obtains: twenty firms own 43% of all private commercial forest land, as compared with twenty-three owners of the same percentage area in 1963.

Another indicator of the concentration in holding of agricultural land is the steadily increasing average acreage of California farms. Inspite of the fact that numerous studies show that efficiency does not require large acreage and that a farmer will reach maximum technical efficiency around one hundred acres in fruit and around six hundred acres in cash crops like cotton, by 1969 the average size of California farms had increased to 627 acres from 250 acres in 1930.

The second major characteristic of ownership of agricultural lands in California is the rise of a new class of absentee corporate landlords. One-half of the cropland is now farmed by corporations controlled by unrelated individuals or other corporations in contrast to the families who till the soil. Almost half of the land under the control of these corporations is owned by corporations with substantial other business outside of farming, the Dun and Bradstreet sodbusters

Concurrently with the trend in ownership, the state has lost prime irrigable agricultural land to urbanization. According to the U.S. Department of Agriculture Economic Research Service for the twenty-year period from 1944 to 1964, 39 counties showed a total decrease of 913,000 acres of cropland while 19 counties showed a total increase of 1,511,000 cropland acres, thus giving the State a net growth over the period of 598,000 acres. By contrast between the agricultural census years of 1959 and 1964, forty-four counties showed a combined drop in cropland acreages of 461,000 acres, while only 14 counties had increases, which totaled 291,000 acres. For this five-year period California lost some 170,000 acres of cropland. An unpublished report of the Soil Conservation Service projects that between 1967 and 1980 another 2 million acres of California land will have "gone under." It is estimated that over one-fourth of this land will be the best irrigable land in the state.

What accounts for the trend to concentration of the prime cropland of the state in the hands of the Dun and Bradstreet sodbusters?

1. Subsidies which favor large units of production: price supports, free water, cheap labor, free research.
2. Speculation in land encouraged by the tax structure.
3. Lack of cheap credit for small farmers.
4. Use of monopoly tactics in marketing.

II. Implications of Concentrated Corporate Landholding for Producers and Consumers

The developments in land ownership and use described above have the following implications:

1. Continued withdrawal of prime cropland from production through speculative holding.

2. Greater use of chemical fertilizers and pesticides as production shifts to marginal lands.

3. Increased costs of production and higher food prices.

4. Increasing pressure on small farms.

5. Loss of open space and urban sprawl.

6. Poorer crop yields, decline in quality and variety of crops, partly as a result of the resort of corporate farmers to synthetic techniques in food production, partly as a result of increasing external costs of production such as pollution.

7. Monopoly control over marketing.

8. Stronger lobbies against regulation in the public interest.

9. Perpetuation of subsidies to large-scale producers.

10. Formation of a new class of serfs on the land.

The foregoing developments are described in detail in Chapter Two of the Nader Report on Power and Land In California, which is attached hereto as Exhibit C and is incorporated herein by reference. The various points will be the subjects of later speakers.

STATEMENT OF GEORGE BALLIS, JOURNALIST, FRESNO, CALIF.

Mr. BALLIS. My name is George Ballis and I have lived in Fresno for the last 19 or 20 years. When Eisenhower went to the White House, I went to Fresno.

Senator STEVENSON. I might have been tempted to join you if I had known you were going to Fresno at that moment.

Mr. BALLIS. Your father carried Fresno.

Senator STEVENSON. Fresno sounds like a fine town. We are going there tomorrow, somewhat belatedly.

Mr. BALLIS. While in Fresno I worked 16 years part time as an editor of the AFL–CIO newspaper, the Valley Labor Citizen. During that time I also worked in the organization of farm workers and particularly on political campaigns on both a voluntary and professional basis.

It was while working in politics, in trying to help in the organization of farm workers, that I started getting interested in the power of the San Joaquin Valley and why certain people are Democrats and Republicans at the same time and how that sort of thing worked. I had just gotten out of college and I had been reading out of the history books about how the Democrats hate the Republicans. Then I met this man in Fresno by the name of J. E. O'Neil, who is now deceased, President of Producers Cotton Oil Company. The political joke when I got to Fresno was that there were really three Jack O'Neils, there was the Republican O'Neil, the Democratic O'Neil, and the real Jack O'Neil.

He had one vice president in the Republican Party, and sitting at the head tables of all of the dinners, and it didn't make any difference who the candidate was.

There was another vice president who was a hard-core Democrat.

So I started thinking about that, and I figured it might have some implication on who really runs the joint. So what I would like to do right now is to submit four studies which have been made relating to the San Joaquin Valley, and I would like to verbally summarize them.

One study is called the "Profile of Power Structure in San Joaquin Valley". That was written about 4 years ago for research done by Ken Blum and myself.

One of the other reports is called the "Imperial Valley," which deals with the same sort of study of the Imperial Valley, on the border of Mexico and California.

Another is called "Del Monte", which deals with an analysis of one large corporation which is involved in agriculture in California.

Another one is called "The Dispossessed", which was done as a study in part of our production of a 16-millimeter documentary film which indicates that the same corporations which control the agricultural land of California also control the mountain areas and, in fact, the Indian problem is the same problem we are talking about when we are talking about agriculture.

Senator STEVENSON. We will include in our hearing record at this point the two Reports which you have submitted to the subcommittee.

(The information referred to follows:)

PROFILE OF POWER STRUCTURE IN SAN JOAQUIN VALLEY

The singular fact of economic and political power in California is that much of its prime agricultural lands are held in large tracts by absentee owners. The patterns of large holdings -- or large holding -- prevails in the Delano grape area, western Stanislaus County, the Sacramento-San Joaquin Delta, Orange County, Imperial Valley and, most significantly in the San Joaquin Valley's west and southsides between Los Banos and the Grapevine (south of Bakersfield). Once the significance of concentrated landownership is understood, all of the political fights over water and farm labor - and most of the state's other public policy battles - fall neatly into focus. The interests which control this land are interlocked with all other facets of the California economy. They work in both political parties. They romance organized labor, particularly the building trades.

The largest holding in the San Joaquin Valley is Kern County Land Company (KCL) which owns about 350,000 acres in Kern County. That's equal to a 6 mile wide strip of land extending from San Francisco to Sacramento. Or from Los Angeles to Santa Barbara.

This holding was acquired in post-Civil War days through political fraud, economic pressures, legal harrassments and conventional purchases.

KCL in 1966, is, however, far more than a land giant in a remote agricultural county. It is an international corporate octopus. A modern illustration of the maxim that the sins of fathers shall be visited upon sons.

KCL operates cattle feeding yards in California and Kansas, oil leases along the Gulf Coast and in Australia and Canada.

Twenty-five percent of American automobiles are equipped with exhaust products produced by a KCL subsidiary, Walker Manufacturing. One of Walker's three plants is located in Aberdeen, Mississippi. Another subsidiary, Deluxe Products, which makes oil filters has a plant in Holly Springs, Mississippi.

KCL holds controlling interest in J. I. Case farm machinery. It is developing real estate for residential, commercial and industrial use in Bakersfield, Santa Monica, and Hawaii.

KCL owns interests in a Palo Alto electronics firm, a Coalinga asbestos mine, a co-op winery. It holds canal companies, an almond hulling plant, a fruit packing operation.

Its directors sit on the following boards, in some cases with high office: Bankers Trust, General Electric, Matson Navigation, Pacific Mutual Life Insurance California Ink, Hewlett-Packard, Varian Associates, Pillsbury, Owens-Illinois Glass Western States Life Insurance, American Trust, Emporium Capwell, Pacific Telephone, Western Pacific Railroad, Pacific Gas & Electric, Rand Corporation, Brunswig Drugs, Security First National Bank, First National Bank, Firemen's Fund Insurance Company, and others.

The KCL operation was put together in the 1870's and 80's by James Haggin and Lloyd Tevis, two San Francisco financial manipulators, and Bill Carr, who gained fame as chief political hatchetman for the Southern Pacific Railroad.

The trio, with Carr as the man in Bakersfield, moved into Kern County with immense financial resources and tremendous political juice. In less than 20 years they gained title to nearly 400,000 acres.

When the Southern Pacific was selling land to no one, the ring -- as the Haggin-Tevis-Carr operation was called by the liberal San Francisco Chronicle -- was able to buy vast SP tracts, directly some 100,000 acres, indirectly another 62,000. The fact that Tevis was vice president of SP helped.

In the mid-70's the ring obtained 30,000 acres which had been entered with forged soldiers' scrip. The titles were clouded so Congress passed and President Grant signed, on his last day in office, the Desert Land Act.

Before the general public discovered the implications of this measure, the ring had secured the 30,000 acres of fraud and entered another 70,000 acres, all through dummy filings. The Visalia land office was put at the disposal of Carr all through a Saturday night and Sunday to file the entries.

The Desert Act allowed entries up to 640 acres for $1.25 an acre, while charges under the regular Homestead Act were $2.50 an acre for 160 acres.

The new act also waived the residency requirement on the grounds that the so called desert lands could not be inhabited until reclamation projects were completed.

Bitter protests led by the Chronicle forced a federal investigation which proved that most of the dummy entrymen had perjured themselves in the affidavits -- they had never seen the land on which they filed and they did not know if it was desert land -- in fact large portions were farmed without irrigation. Among the dummies were employees of firms controlled by Tevis and Haggin, including Wells Fargo and Central Pacific Railroad, plus government employees under Carr's control at the mint and the customs houses. All the dummies gave their land to the ring.

In a later hearing, the ring admitted that it had inspired entrymen friendly to their interests. Haggin declared the whole fraudulant operation was justified because reclamation and irrigation projects were feasible only under large ownership and that the ring planned, once the projects were complete, to sell off the land to settlers.

The federal government bought this argument. Haggin's claim that the big operators would build irrigation projects and sell off is comic in light of modern day developments; i.e., the Central Valley's Project financed by the federal government and the State Water Project financed by State and Federal funds are bringing water to these lands.

Incidentally, KCL land is not for sale -- the cost factor was so low that sales would put the company in an unfavorable tax position. However, KCL in 1964, did sell 10,000 acres in northern Kern County. The reason according to the KCL land office in Bakersfield is that the situation might arise when the company could no longer guarantee delivery of irrigation water to these lands, farmed by tenants. The future is uncertain because the federal government has been talking about enforcing a federal law which limits the delivery of irrigation water from subsidized projects to no more than enough to irrigate 160 acres of land. Kern River water is now supposedly subject to that law -- as yet unenforced -- because the river is regulated by the federally constructed Isabella Dam.

The federal government debates this issue with itself while KCL tenacles reach far beyond the "home" base in Kern County. In fact, "home" base is not Kern County, but San Francisco has been since the beginning. KCL never held a stockholders' meeting in Kern County until 1961.

Southern Pacific Railroad owns 201,000 acres in the Valley. It got this land free about 90 years ago for building a railroad part of which was never completed.

The Boston Ranch Company holds some 37,000 acres. It is owned by J. G. Boswell who also holds 32,364 acres in his name. Also under Boswell control are: Crockett-Gambody, 28,503 acres; Tulare Lake Land Company, 10,392; and Miller and Lux (by lease), 25,313 acres.

Over 168,000 acres is owned by the Tejon Ranch which is controlled 50 per cent by the Los Angeles Times, explaining perhaps that newspaper's great concern for water development. Tejon holds another 100,000 acres south of the Kern County line.

Another large holding in the San Joaquin Valley is the 52,000 acre Vista del Llano owned by Anderson, Clayton and Company (ACCO), the largest cotton marketing firm in the world. ACCO is the most extensive private financier of crops in the U. S., a key exporter of Brazilian cotton -- and coffee, part owner of a large ship operating combine, a manufacturer of oleo, soft drinks, instant pizza, salad oil. ACCO owns an insecticide plant in Mexico, a soap factory in Brazil, a farm in Peru, cotton oil mills in Argentina, cotton gins in Paraguay. It has agencies in Thailand and Turkey, Korea and Holland, Yugoslavia and South Africa -- and 38 other countries.

Another large holding is the DiGiorgio Fruit Corporation owning a total of 26,000 acres of California farm land. DiGiorgio subsidiaries include: Wood Canning, S & W Foods, Treesweet Products, Sun Vista Foods, Klamath Lumber, Earl Fruit, Philadelphia Terminals Auction, New York Fruit Auction, and Chicago Fruit Auction. The New York and Chicago auctions are owned 45 and 13 per cent respectively. DiGiorgio controls the growing, and shipping, the canning and the selling of its products on the eastern markets.

Directors of DiGiorgio also sit on the following boards, in some cases with high office: Bank of America, Union Oil, Broadway-Hale Stores, Pacific Telephone, Lockheed Aircraft, Petroleum Equipment Suppliers, Southern California Edison, Foremost Dairies, Fibreboard Paper, California Ink, Bank of California, Merchants National Realty, Transamerica Insurance, Firemen's Fund Insurance, Pacific Gas and Electric, Crocker-Citizens National Bank, Bell Telephone of Nevada, and others.

The biggest portions of the larger holdings are controlled from San Francisco (KCL and DiGiorgio), Los Angeles (Tejon Ranch), and distant points (ACCO). Even some of the local big operators are involved in non-farm corporations. The Giffen family of Fresno owns some 60,000 acres in this area and farms perhaps another 60,000 under lease mainly from SP. Russell Giffen is a director of the Pacific Gas & Electric, the world's largest private utility.

Now under construction through the westside of the Valley, is the State-Federal San Luis irrigation and municipal water project. The main canal enters from the north approximately at Los Banos and extends south-southeastward through the middle of all these above mentioned holdings except DiGiorgio. The canal will turn sharply eastward near Bakersfield and will leave the Valley through the Los Angeles Times' Tejon Ranch.

This project will be subsidized by the State and Federal taxpayers -- over $1,000 per acre in some places. On water projects financed in any way by U. S. tax funds, the Federal law sets a subsidy limit to any one owner: enough water to irrigate 160 acres of land (320 acres for man and wife). This subsidy limit has been waived on the major portion of this land by Federal administrative fiat-- contrary to legislation by Congress. When small farmers, unions, and church groups in 1964 stormed a U. S. Senate interior subcommittee in protest, the Federal administration announced some re-tightening of its loose regulations. Since then, Department of Interior officials have once again relaxed in favor of the large landowners.

In one 600,000 acre portion of the Valley, Federally subsidized irrigation water will be delivered through a local governmental agency created under California State Water law. The name of this agency is the Westlands Water District. SP owns 120,000 acres in this district; Giffen and Anderson-Clayton operate here. When the district holds an election each person has one vote for every dollar's worth of property he owns. The SP land agent drives down from San Francisco to cast 20 per cent of the vote all by himself. It is not surprising that he holds one of the director's chairs. The president of the district is Russell Giffen, a 100,000 acre operator who also is a director of Pacific Gas & Electric.

Manager of the district is a lawyer named Ralph Brody. Brody began his career in the U. S. Bureau of Reclamation which builds the water projects. He learned the water law so well that when Pat Brown was elected Governor, he named Brody his special counsel on water. Brody succeeded in snaking the State water plan -- which will deliver water to the large landowners -- through a hesitant State legislature. Brody succeeded where two Republican Governors had failed. Almost immediately he was hired as the manager of Westlands and appointed by Governor Brown as chairman of the California State Water Commission, a body which makes basic decisions on irrigation water projects. A conflict of interest?

It is Ralph Brody who speaks for the State of California at Congressional hearings on Federal appropriations for water developments. It is almost funny to have him sitting before a U. S. Senate committee as Water Commission chairman and introduce himself as manager of the land barons' Westlands Water District.

On the charted portions of this map, some of the richest land in America awaits full exploitation. The largest block of class I soil in the U. S. lies just south of Los Banos in Westlands. It is useless, of course, without irrigation water. Its value dry is estimated at about $100 per acre; with pumped water from expensive deep wells, around $350; with subsidized canal water, $1,000. The land will be worth just about what the taxpayers will pay out in subsidies.

These subsidies and the fabulous increment in land values explain why, when a $1.75 billion bond issue to finance part of the State's contribution to the project was on a November, 1960, ballot, the biggest financial doners to the successful "yes" vote were Tejon Ranch and Southern Pacific.

The area of the historic Delano grape strike includes the following holdings:

DiGiorgio	26,000 (4,700 in strike area)
Schenley	3,700 (plus 700 leased)
Anthony Bianco	6,795
W. B. Camp	4,908
Anton Caratan	1,129
Mila Caratan	2,183
P. J. Divizich	5,500
John Dulcich	1,431
Elmco Vineyards	3,610
Guimarra	12,459
George Lucas	940
Pandol & Sons	2,288
D. M. Steele	4,187

A & N Zaninovich	2,283
Marko Zaninovich	3,686
V. B. Zaninovich	2,157

These holdings are not entirely in the strike area. Who are the owners of these lands?

Anthony Bianco, for example, owns grapes outside of Delano. His headquarters are in Fresno, and he owns 240 acres of grapes in Fresno County. He also owns 400 acres of grapes at Arvin which is near Bakersfield. He has packinghouses at Sanger in Fresno County, and in Delano. He also grows grapes near Thermal in Riverside County, where he also has a packinghouse. He has a 500 acre peach orchard near Tipton along with 200 head of cattle and pasture land. He has cherry orchards near San Jose, but his biggest ranch is 4,000 acres of lettuce, cotton, vineyards, and citrus near Glendale, Arizona. This was bought by a syndicate formed by A. Biancos, Sr., and Jr., Carl Jarson of Detroit and Peter Malbandian of Phoenix for $2,600,000. The Delano ranch cost $500,000 and the Tipton ranch also cost $500,000. Bianco has an office in New York to handle eastern shipping. He ships 3,000 rail and truck lots a year. Each carlot holds about 1,250 lugs, so he ships a total of 3,750,000 packages a year. Of course, not all of these are grapes, and not all of the fruit is grown by him. He buys from Lodi and Modesto southwards throughout the San Joaquin Valley.

Anthony Bianco is a director of the Grape Crush Administrative Committee which administers the bulk wine marketing order. He is also on the board of the Allied Grape Growers Association, a grower wine processing co-operative.

W. B. Camp, who was an assistant director of the Agricultural Adjustment Administration (AAA) during the New Deal was head of the entire cotton division, and was also the director of the Southern Region. He came fresh from his job of agricultural appraiser for the Bank of America (1929-1933). He made his money off the destruction of potatoes on a Kern County airstrip which was the New Deal's way of putting business back onto its feet while 19 million workers were unemployed and hungry. He owes his fortune to the Democratic Party. He was president of the quasi-facist Associated Farmers of California, the director of the agricultural committee of the State Chamber of Commerce. His wife is a farmer in Edgefield County, South Carolina and is a director of the Bank of Trenton, South Carolina. W. B. Camp is mainly a cotton grower, and is a small grape grower.

Delano has been a relative late comer in the history of California agriculture. As in almost all of the State's farming, the wellspring of wealth and power is water -- captured, pumped, stored and spread out on the rich land at the command of the grower.

Even by arid California standards, the Delano area was not well-endowed by nature -- it was mostly sagebrush, with no rivers nearby -- so the first settlers went elsewhere. The keystone development came in the 1920's when Joseph DiGiorgio an entrepreneur with a Sicilian grape background, began to pit vines and well water against the Delano sagebrush. After a faltering start and much experimentation, DiGiorgio and others who saw him making it, expanded their operations and perfected their grapes.

As they drew more and more water out of the ground for their multiplying vines, the underground water table sank lower and lower. The expense of drilling new wells down to the fading water table became prohibitive for all but the bigger operations.

According to records cited by Chief Engineer-Manager, Sam Fortier of the Delano - Earlimart Irrigation District (the strike area), between 1905 and 1948 the water level dropped at least 100 feet; and in some parts of the district, as much as 250 feet. DiGiorgio and the other grape growers were literally pumping themselves out of business.

In the 1930's, the U. S. Bureau of Reclamation began work on the huge Central Valleys project. One of its long range aims was to bring river water some

100 miles into the Delano area. This rescue water began to arrive, via the Friant-Kern canal, in 1951.

Since then the water table has gradually risen. The average rise has been 50 feet; as high as 100 feet.

Federal officials place the cost of supplying Central Valleys Project water at $700 an acre, of which the growers repay $123. The remaining $577 per acre comes from Federal taxpayers and the users of project electric power.

The 160 acre subsidy limit is supposed to apply to the Delano area. Some of the big growers, mostly notably DiGiorgio, have agreed to this limit in signed contracts; but compliance has been bogged down in weak-kneed enforcement of a weak law -- and DiGiorgio continues to use subsidized water for much of its holdings -- contrary to the letter and the spirit of Federal law. Others of the big growers, Schenley for example, have decided not to sign any agreements of compliance with the Federal law; and the huge whiskey maker is allowed to pump all the subsidized water he wants from the underground wells replenished by tax delivered water.

The production of grapes in Delano is a big business established by hard-working, creative men. It is a big business which was once rescued by Federally subsidized irrigation water and now depends upon this water for its very existence.

California growers are enriched and empowered not only by subsidized irrigation water -- the world's biggest welfare program some have claimed. The big growers strengthen their control of our lives through political manipulation which brings them the tax financed subsidies of soil conservation programs, marketing orders, acreage allotments for crops, guaranteed prices, etc.

These government programs are administered entirely by local committees of farmers. The big growers control the committees which parcel out the subsidies.

The size of some of these subsidies strains the imagination.

On June 19, 1967, Senator John Williams of Delaware, inserted in the Congressional Record, a list of direct price support payments received by big farmers throughout the United States. Included on this list were the following big operators on the west and south sides of the San Joaquin Valley and the amounts of direct subsidies (welfare) they received from the Federal treasury during 1966:

J. G. Boswell	$3,313,000
Giffen, Inc.	2,397,073
South Lake Farms	1,468,696
Salyer Land Company	1,014,860
Vista Del Llano	622,840
Kern County Land Company	652,057
Westlake Farms	622,569
Tejon Ranch	121,095

(The above is just a sample of the California farmer welfare receipients listed by Senator Williams. A total of 84 farming operations in California received direct price support payments of over $100,000 in 1966.)

This paper becomes, in this light, more than an expose of past politcal frauds and current political giveaways. It becomes a warning to all of us who cherish freedom and would perfect its practice in America.

The warning is simply this: if the economic political power structure illustrated by this paper is further enriched and entrenched by huge water subsidies, individual freedom will be even more severely limited, if not entirely eliminated, in the San Joaquin Valley -- and thereafter much of the State.

The landownership pattern on the east side of the San Joaquin Valley is just the reverse of what exists on the west and south sides. According to the U. S. Bureau of Reclamation in the entire area served by the Friant-Kern Canal from Fresno to Bakersfield, over 80 per cent of the holdings are under ownerships of less than 160 acres each (a notable exception is the Delano-Earlimart Irrigation District as cited above).

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The scale of holdings is reflected in the local communities. Small farm communities, according to a U. S. Senate subcommittee on small business, offer more opportunity for small business, for community activity and participation, for jobs. A recent study by Fresno State College revealed, also, that the small farmer on the east side of the Valley pay higher wages than the big operators on the west side.

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THE STOCK PORTFOLIO OF A "TYPICAL" RANCHER

W. Todd Dofflemyer was, until his death March, 1966, a substantial shipper and grower of oranges in Tulare County. For many years he sat as a member and chairman of the Exeter Irrigation District Board, which administers the Federal Government's water program, providing growers with water at a small fraction of its real cost. Needless to say, Dofflemyer and his fellow board members, all of them large growers using the water they administer, were not over-zealous in their enforcement of the program's 160 acre limitation. Mr. Dofflemyer's will, available in the Tulare County Recorders office, makes very interesting reading, especially its itemization of his somewhat lavish investments in stocks:

2000	shares Agnico Mines, Ltd.
200	shares Abex Corporation
600	shares American Cynamid Corp.
53	shares Amtel, Inc.
110	shares Arvin Industries
200	shares Arvida Corporation
2000	shares Benquet Consolidated, Inc.
109	shares Callahan Mining Corp.
200	shares Cities Service Company
300	shares Denison Mines, Ltd.
2000	shares Deer Horn Mines, Ltd.
300	shares Dome Mines, Ltd.
400	shares Eurofund, Inc.
250	shares Englehard Industriesm, Inc.
100	shares Great Western Sugar Co.
150	shares Hecla Mining Company
229	shares Homestake Mining Co.
100	shares Ideal Cement Company
200	shares International Harvestor
200	shares International Pakcers
200	shares Japan Fund
100	shares Kerr-McGee Oil Industries
100	shares Lockheed Aircraft Corp.
200	shares Melville Shoe Company
100	shares Signal Oil & Gas Company
1000	shares Siscoe Mines, Ltd.
200	shares Southern Natural Gas Company
110	Timken Roller Bearing Company
303	shares Tennessee Gas Transmission Co.
100	shares United Aircraft Corporation
300	shares United Shoe Machinery
1000	shares Upper Canada Mines
150	shares Union Carbide & Carbon Corp.
200	shares Allegheny-Ludlum Steel
100	American Can Company
200	shares American Smelting & Refining Company
1000	shares American-South African Investment Company
200	shares Anaconda Copper Company
100	shares Atlas Consolidated Mining
400	shares Atchison, Topeka & Santa Fe Railway Company
200	shares Babcock & Wilcox Company
100	shares Bunker Hill Company
165	shares Cerro Corporation
100	shares Colt Industries
200	shares Continental Can Company
432	shares Draper Corporation

IMPERIAL VALLEY

Imperial County, California, on the U.S.-Mexican border, is the sixth richest agricultural County in the United States. This wealth is 100% dependent on a heavily subsidized federal irrigation system (welfare plan) which illegally delivers water to large landowners. These farmers get additional welfare support in the form of:

*subsidies for growing and not growing crops.
*soil conservation funds for improving their lands.
*land management and crop advice.
*illegally low farm assessments.
*cheap labor, most of it foreign, much of it illegal.

One of their welfare programs - cotton-grain subsidies - in 1969 paid 252 Imperial growers $8 million compared to the $7.6 million received by the 17,760 local residents on poor people's welfare.

About 24 per cent of the Imperial County population is on poor people's welfare. The official county unemployment figure is over 11 per cent -- nearly 50 per cent above the state-wide rate. According to the local director of the state employment office, 90 per cent of Imperial farm jobs are held by Mexican commuters who cross the border daily. In the past 10 years, one of every two farm jobs has disappeared. Farm employment has plummeted from 14,700 to 7,500. In the peak season, jobs are scarce; in the off-season, non-existent.

Poor people's welfare, in contrast to what is available to the landowners, is meager, and many times not readily at hand (especially for those who are not up-to-date articulate on their rights.) So folks get hungry.

Soothing the abrasive Imperial gap between the few rich and the many poor is the "war on poverty". One of the local ointments in this war is the Rural Development Corporation (RDC) which has set out to promote housing, educate the farm workers, and develop jobs. It has an English and citizenship program in which students receive a stipend of $20 a week -- hardly more than gas money to get to school in a rural area. This winter as the classes progressed on the long range benefits of citizen participation and learning English, RDC students, teachers and administrators became overwhelmed with the blowing-in-the-wind futility of trying to talk away the rising tide of unemployment, deprivation, and hunger. The end of February 1971 (beginning of the farm slump season in Imperial) RDC was able to release $5,000 for emergency food distribution. The money was passed out in $30 food orders per family; 166 families were helped. Perhaps, hardly more than another futile gesture, but RDC could'nt stand there talking about democracy and conjugating verbs without trying to do "something" immediate for starving people.

The citizenship classes of RDC were used for outreach to contact hungry families. This is some of what they found on the first day of food distribution:

*** A family with eight children. The father breaks his leg and then can't find work for several months. In January he disappears. The wife and kids live in a small trailer. There is no table in the kitchen and the rest of the trailer is laid out as a haphazard sleeping quarters.

*** A widow with eight children pays over $100 monthly for four rooms with no inside running water.

*** A family with 13 kids. Last year, the man joins the farm workers strike to improve wages. He is blacklisted by Imperial Valley ranches.

*** Numerous farm workers with families cannot find work during the February-June off-season in Imperial. Welfare is increasingly hard to come by, so they migrate to Texas or the San Joaquin Valley of California (sometimes without their families).

*** A farm worker's widow with five children lives in a one-bedroom house.

*** A family with six children. Wife is dying of cancer. As the woman gets weaker, her husband stays at home to take care of her last three months of life, (he can't afford to do this.) He can't afford any kind of help. One week after receiving their food voucher, the wife dies. As this is being written, the husband is taking up a collection among his neighbors and friends to pay burial expenses.

*** A family with three kids. Husband falls off tractor, and an operation at the county hospital leaves him almost paralyzed. His disability runs out, but his scar from mid-stomach to mid-back swells painfully whenever he exerts himself. He works occasionally when a job is available, but he doesn't think he can continue.

*** A family with six children has been living in a three room house for six years (rent:$45) No inside toilet or bathroom. No money for school clothes.

RDC distributed $5,000 worth of $30 food order vouchers. A few hundred people were fed. RDC is planning to pass out an additional $10,000 this spring -- a few hundred people will be fed a couple of more times. How far does a $30 food order go with six to 13 kids??? It takes some of the edge off the hunger. Draws some of the fire out of the anger, but nothing will have changed in Imperial Valley. The rich will continue to be very rich. Very powerful. Very subsidized. Very illegally subsidized. The poor will contine to be deprived, powerless and effectively ignored, and all the kids will once again be hungry a week after the last food voucher is issued.

The poor will continue to be poor because the rich are hogging the public welfare.

Nothing will ever change in Imperial County until the basic priorities of that society are radically altered to conform to the democratic principles and laws of this land. The first step in that direction is a recognition that Imperial County is a corporate-socialistic province in which the ruler's claims to wealth and power rest on the questionable laurels of unfair and of times illegal subsidies (welfare) payments and the bald exploitation of the poor, particularly those of Mexican heritage. Let us now look at these laurels.

THE WATER SUBSIDY

Imperial County is a hot, dry, low desert. The annual rainfall ranges between two and three inches. The soil is rich from Colorado River silt deposited over the eons, but farming would be impossible without irrigation. The big Colorado is the source. In 1901 the first irrigation water was brought to Imperial from the river 60 miles away. Four years later, a roaring flood washed away the diversion works, and water poured into the Valley for two years until 1907 when the Southern Pacific Railroad finally filled the breach. Even after that irrigation in Imperial was a chancy business. The Colorado was untamed. The flow was seasonal. The Alamo Canal which fed water into the valley from the river traversed part of northern Mexico first. The U.S. Bureau of Reclamation said these conditions "severely impaired the full economic development of the area."

Imperial landowners wanted an American Canal and a harnessed Colorado. They got both with the Boulder Canyon Project: Hoover, Parker, Davis, General Wash Dams and the first delivery of irrigation water through the All-American Canal in 1940. "It now may be said with confidence," bragged the Imperial Irrigation District, "that no section of our nation is more assured of a permanent and prosperous future than is this valley." In other words, the Boulder project financed by the U.S. taxpayers and built by the Bureau of Reclamation saved the Imperial Valley from recurring disastrous floods and now delivers into perpetuity and on order the irrigation water required to make that desert a garden. The subsidies built into this system would stagger the conniving imagination of that mythical welfare mother who continues to produce kids so she can collect more dole.

(1) FREE DAMS

The Imperial farmers who use irrigation water from the Colorado project do not pay one red cent for the cost of the three dams which regulate the river, store their irrigation water, deliver the water on their demand and save them from floods.

The Bureau of Reclamation states:

"Hoover Dam pioneered reclamation's present-day giant, multiple-purpose developments. Its benefits encompass the whole concept of river control."

"The dam controls floods and stores water for irrigation, municipal and industrial uses, hydroelectric power generation, recreation and fish and wildlife...This water is released in a regulated, year-round flow to farms, homes and factories downstream."

"Water stored in Lake Mead (behind Hoover Dam) irrigates 3/4 million acres of land in this country (over 1/2 million acres in the Imperial Irrigation District) and 1/2 million acres in Mexico...

"Colorado River water stored behind Hoover Dam irrigates some of America's richest farmlands."

California Department of Water Resources says, "Davis Dam, 67 miles downstream (from Hoover)...is used primarily to re-regulate the water...in accordance with downstream water requirements in the United States and Mexico...

"Senator Wash Reservoir...provides for a limited but valuable amount of additional regulation."

Despite these statements of the irrigation benefits derived from these three dams, the Bureau of Reclamation in its financial statements does not allocate one cent of the dam's costs to irrigation; therefore, irrigators repay nothing. They get a free ride. A subsidy. A dole. Most of the Hoover and Davis dams' costs are allocated to hydroelectric power and reimbursed by power. Most of the power is used in urban areas which means that the electric customers in the cities (as far away as Los Angeles) are subsidizing irrigation for Imperial farmers. When Bureau of Reclamation cost expert Gene Hines in Boulder City, Nevada, was asked why none of these dams costs were allocated to irrigation in view of the admitted irrigation benefits, he said, "Apparently there were no obvious beneficiaries at the time the costs were allocated."

The Boulder Canyon Project Act was authorized December 21, 1928. The Imperial Irrigation District (IID) was organized in 1911, and began actively leading the campaign for the Hoover Dam and All American Canal in 1920. The Metropolitan Water District of Southern California (Los Angeles area), another agency which delivers irrigation water illegally from the Colorado, was organized in 1928 before the project was approved, and its representatives lobbied for its passage.

Estimated Irrigation Subsidy From
Colorado River Dams*

	Total Cost	Estimated Irrigation Subsidy
Hoover	$177,000,000	$35,000,000
Parker-Davis	$152,000,000	$30,000,000
~~General~~ Senat. Wash	$ 58,000,000	$58,000,000

*Based on a 20% ratio for irrigation on Hoover, Parker, and Davis, and 100% for General Wash. The 20% figure is on the low side to compensate for the large amount of city water in the Los Angeles part of the project. Irrigation is allocated over 60% of costs in the federal Central Valleys Project in California. I guess that 100% of ~~General~~ Senat. Wash is chargable to irrigation because the only purpose of the dam is to regulate the river for the farmers.

The Boulder Canyon Act contains language which permits the irrigators to get free dams. The legislation says: "that no charge shall be made for water for irrigation for potable purposes in Imperial or Coachella Valleys."

Such phrasing, however, does not preclude a realistic evaluation of the subsidy involved. In standard Bureau of Reclamation procedure, the function of the allocated cost concept is to give a clear picture of the division of expenditures by function on multi-purpose projects such as Boulder Canyon. The reimbursable costs reflect the division of repayment obligations, if any, by the various users. The Bureau policy on irrigation, for example, is that the users are charged not on the basis of costs but on the basis of the Bureau's estimate of their"ability

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to pay." In the Central Valleys Project the bureau allocated over 60% of costs to irrigation. The reimbursable costs - what the irrigators were actually required to repay - was 17%. The amount of the irrigation subsidy there, is easy to figure. Not so on the Colorado. Apparently the big landowner-speculator coalition (led by Los Angeles Times and Irvine) which promoted the project desired to have the subsidy (welfare) tracks (covered) as much possible.

(2) FREE FLOOD CONTROL

Minor proportions of Hoover Dam costs and the entire cost of [illegible] ~~[illegible]~~ Wash Dam are allocated to flood control which is a totally non-reimbursable item. The cost is paid by the federal taxpayers, nothing is paid by those protected from floods -- like the IID. Another subsidy. Another welfare program.

Non-reimbursable Flood Control

Hoover Dam	$25,000,000
[illegible] ~~[illegible]~~ Wash	$58,000,000

Note: None of the Parker-Davis Dams' costs are allocated to flood control or irrigation as noted above; but out of the $152,000,000 expenditure some $13 million is allocated to Municipal and industrial water, presumably for the Metropolitan Water District whose water is diverted from the Colorado at Parker Dam. ~~However, in the reimbursable costs column the Bureau charges this $13 million to electric power.~~ The Met MADE A 13 MILLION $ CONTRIBUTION TOWARD BUILDING PARKER-DAVIS DAM. ~~repays no water charges.~~ Incidentally, the Met does deliver irrigation water from the Colorado, some to Orange County. The biggest landowner there: Irvine Ranch, 88,000 acres. Irvine is the second largest landowner in Imperial with 10,000 acres.

(3) FREE WATER

As noted above, IIId is not charged for any water it uses from the Colorado by special exemption from Congress. The argument, in effect, being that since IID used river water before the project went in, they had some sort of a property right and the Federal Government could not charge Imperial for water it already owned. As noted in the section on "Free from the Law," ownership of the water is not the key factor [illegible] below, ownership of the water is not the key factor in application of the 160 acre limitation. The law applies to all water stored, regulated and/or delivered by a federally subsidized facility.

Imperial Irrigation District (IID) receives from the Colorado River 2.6 million acre feet of water a year. This is slightly more than the 2.5 million acre which is used yearly from all its sources by the entire Metropolitan Water District. The population of Imperial County is about 74,000. The population of the Met which extends from Oxnard to San Diego is over 10 million.

326,000

An acre foot of water is 316,000 gallons -- enough water to cover one acre one foot deep. One acre foot would supply a city dweller with enough water for over four years if we assume tge daily per capita city use is 200 gallons -- a high figure.

Per capital use in Los Angeles is now 188 gallons; in San Diego, 153.

Assuming about two million acre feet of IID's water gets its 500,000 irrigated acres, that means that each acre uses four acre feet of water a year. An individual could survive over 16 years on that much water..

(4) FREE INTEREST

IID does have some obligation to pay on the Boulder Canyon Project costs. It pays a pro-rate share of the costs for the diversion works and the All-American Canal which carries the water to the district from the river. This is a 40 year contract -- in reality a 55 year contract. (see paragraph below.) On this contract no interest is charged. The federal taxpayers pick up these costs. Another subsidy. Another dole. If interest were charged the $28 million now being repaid by IID would be nearly tripled.

(5) FREE RIDE FOR 15 YEARS

All-American Canal began delivering water to IID in 1940. The district began repaying its reimbursable share in 1955. That's like buying a house and not making a payment for the first 15 years.

(6) MORE FREE FLOOD CONTROL

All-American Canal costs $70 million; of this, $4.5 million is allocated to non-reimbursable flood control. When asked about this, Hines of the Bureau at Boulder City said that figure covers some levees built in the valley to prevent flooding.

(7) FREE FROM THE LAW

Terms of the Federal reclamation law under which the Colorado River facilities were built require that delivery from any federally subsidized irrigation project be limited to enough water to farm 160 acres for each owner. The law has been interpreted liberally to allow man and wife 320 acres - and a real conniver could run-in a 160 acres each for a couple other relatives also.

Reclamation law further states that one owner may obtain enough water to irrigate endless acres if he signs a contract with the federal government in which he agrees to make available for sale his "excess land" (over 160 acres) within 10 years at a price which does not take into consideration the increment in value resulting from the sugsized water. The purpose of this section is to prevent "undue enrichment" amd tp stop profiteers from gouging buyers for the "unearned increment" in land prices contributed by the federal project.

Harry Horton, late buyer for IID, once told Congress that under terms of this section, the big operator could sign the contracts, farm their lands for 10 years, sell at about any price and come out quite well.

Another part of reclamation law provides that the acreage limitation shall apply to all waters which are stored, regulated and/or delivered by facilities financed in whole or part by the United States. The same law requires that irrigators live on or near their land.

The specific rationale for these regulations is that the benefits should be widely dispersed because all federal irrigation water is heavily subsidized through free interest, free flood control, electric power, etc., and as a result the land skyrockets in value. The general rationale; the better society is the one in which the power and the wealth are broadly enjoyed and controlled.

Clearly this law applies to the Imperial Irrigation District.. But in the lame duck February, 1933, days of the Hoover Administration IID was exempted, without benefit of a government legal opinion (by a mysterious seried of memos). IID's attorney wrote Assistant Reclamation Commissioner Porter Dent asking for a ruling on the 160-acre limitation in Imperial "Provided, that such ruling would be that the 160-acre limitation did not apply." Dent passed the request, with an approving memo, on to Northcutt Ely, as Assistant Secretary of Interior. Ely agreed without following the usual procedure of abtaining a legal opinion from the department's solicitor. An exemption letter was drafted and signed by Secretary of Interior Wilbur.

Two weeks later, Roosevelt replaced Hoover in the White House, and Northcutt Ely took a retainer with the IID-- a postion he still hods .

In 1964, Interior Solicitor Frank Barry ruled that Wilbur's letter was "clearly wrong," and that the law applied. This federal trunabout set the stage for a court case preluded by another curious set of events -- another object lesson in California power politics.

To fight the new attack, Imperial's largest landowners organized Imperial Resources Associates (IRA). Its initial guiding light was Robert Long, vice-president of Irvine Ranch (10,000 acres in Imperial, 88,000 in Orange County, both illegally receiving Colorado water) Long is now a vice-president (in charge of agricultural loans) for Bank of America, world's largest back, financier of over half of California's farm production. Long's favorite speech was a warning about how the little farmer would suffer along with the big grower if acreage limitation were enforced. IRA elected as its president, Stephen Elmore whose three family companies farm over 17,500 acres in Imperial. Presently the Reclamation Commissioner, Floyd Dominy, representing the agency mandated to enforce the law, went to Imperial and told the growers, "I think it is time to examine whether the 160-acre principle is sufficient for today's farming." Following this rousing support of law and order by Dominy, IID and the farmers rejected all formal Bureau of Reclamation proposals to apply the limitation. On January 11, 1967, the U.S. Justice Department filed a suit against IID in San San Diego federal court.

IID went into battle with its regular legal battery while IRA hired O'Melveny & Myers.

O&M, a bi-partisan political powerhouse in California, attaches one of its top men to every important candidate in every important political race in the state. In 1970, they had a man with Reagan and a man with Unruh. In the U.S. Senator's race they assigned a man to George Murphy, a man to Norton Simon and three men to John Tunney, the eventual winner. One of Tunney's O&M assistants was Warren Chrisopher who first met Tunney in Washington when Tunney was the congressman from Imperial and Christopher was a deputy attorney general on leave from O&M. That was when Christopher's partners were defending Imperials big farmers from this federal onslaught. Perhaps a conflict of interest?

Another O&M partner, Allyn Kreps, was a honcho in the winning 1968 campaign of California's other liberal senator, Alan Cranston. Kreps in 1964 ran the initiative campaign which killed much of California's fair housing law. Chief sponsor of that law was Assemblyman Jesse Unruh, the candidate for governor Kreps managed in 1970.

Republican Governor Reaganblasted attempts to limit farm size in Imperial, and the State of California in the person of its Democratic attorney general entered to case on the side of the big operators.

In January 1971, U.S. District Judge Howard Turrentine ruled the 160-acre law did not apply in Imperial. His decision relied mainly on the 1933 Wilbur letter and the fact that it had not been openly challenged by the Congress. The Justice Department brief had said,

> "...the Wilbur letter must be recognized for what it was -- a partisan effort by a lame-duck administration to effect, by administrative interpretation, an exemption...that proponents never dared risk seeking directly."

Turrentine's decision was in keeping with California water litigation history: most lower courts rule with the big landowners; the U.S. Supreme Court rules for the people. At one point, Turrentine was quoted as saying, "Let's get it on the way to the Supreme Court." However, appeal now depends on the politics of Nixon's administration. Nixon has long been on record against acreage limitation. The government has until early April to take the case up to Appeals Court.

Meanwhile another suit is pending in San Diego Federal Court. About 125 mostly landless Imperial Valley folks are asking that the resident requirements of the law be enforced in IID. A little quoted section of the law states that farmers irrigating with federally subsidized water must live on or near their land. About 70% of IID is held by absentee owners living outside of the county. The case is to be heard in mid-March. Art Brunwasser of San Francisco is attorney for the folks led by Dr. Ben Yellen.

The battle over acreage limitation has been long and bitter. Never in the nearly 70-year history of the law has it been strictly enforced. The special interests arrayed against enforcement have, in the final analysis, been too strong for the public interest to prevail. The stakes in terms of power and wealth in Imperial and throughout the West (particularly California) are staggering. First of all, the big operators could not build their own irrigation projects and pay the full costs; so they turn to the federal government for subsidies. The subsidies involved are only the beginning and in the long view not much more than incidental. Delivery of water to arid land multiples the value up to tenfold. Water makes possible great wealth. With a small number of big operators, like in Imperial, the wealth is thereby concentrated as is control of the communities' economic and political destiny. Imperial's big operators not only have babies on their water welfare program, they have continentals, private planes and their very own U.S. Senators.

Strict enforcement of the 160-acre law in Imperial would dethrone, but far from impoverish a priviliged class of owners who have been enriched on the public dole for over 30 years.

According to 1969 figures of the Imperial County office of the U.S. Agricultural Stabilization and Conservation Service, 139 individuals and companies farm over 60% of the IID (300,000 plus acres) in operations of more than 1,000 acres each. The 139 figure is further narrowed when the overlapping and joint ownerships are considered. The Elmore family, for example, has three companies with a total of over 17,500 acres. Conglomorates have moved into Imperial to cash-in on control of the Colorado and cheap water: Purex, United Fruit, Kaiser-Aetna, Dow, and Irvine Ranch. The closest estimate of outside, absentee ownership, is about 70% of IID's 500,000 irrigated acres.

When the "farmers" organized against the 160-acre limitation, the driving force came from Irvine Ranch with headquarters in Orange County, near Los Angeles, and the Elmores who live on the coast near San Diego. (see p. 22 for other Imperial lawsuits)

CROP SUBSIDIES

1969 welfare in Imperial County

	NUMBER	TOTAL PAYMENT	PER CAPITA YEARLY AVERAGE
poor folks	17,760	$7,800,000	$439
farmers*	252	$8,000,000	$31,746

*federal program for growing and not growing cotton and grains. Sugar payments not included.

The federal government also gave Imperial Valley growers over $2.6 million in sugar payments in 1969.

Many of the same growers are involved in both programs. The Elmores, for example, collected $489,006 in cotton-grain subsidies in three different companies. Under the same three names they got $93,652 in sugar payments. Irvine Ranch was doled $174,408 in cotton-grains; $17,000 in sugar. Even the local congressman, Victor Veysey got in on the handout. He was paid $10,000 in the cotton-grain program and $3,500 in sugar.

Last year Congress enacted a $55,000 subsidy limit per farmer per crop. A man can collect $55,000 for cotton, $55,000 for wheat

$55,000 for barley, etc. Also a farmer can rent out his crop allotment over the limit in each crop and realize 60% to 90% of what he took in previously, depending on how much rent he can charge. Also the sugar program is not included in the limitation.

SOIL CONSERVATION SUBSIDIES

Over the past five years, 1966 through 1970, the U.S. Soil Conservation program has paid Imperial growers $1.7 million to improve their land. Nearly 90% of these funds have been used for concrete ditch lining and underground drainage tiles to leach away salt-laden water. This work has been carried out under a cost-sharing arrangement estabished by IID which is also the local soil conservation district, the only such tandem operation in the county. Under district policies, landowners pay 25% to 30% of the costs; the district and the federal government pick up the rest of the tab.

LAND MANAGEMENT AND CROP ADVICE

Imperial County, like other counties, maintains an agricultural commissioner's office and a farm extension service. These offices carry out state laws on inspection of crops, control of weeds, insects and predatory animals and provides farmers with advice and assistance in general farm operations. The Imperial County 1970-71 budget for these two departments is $340,000. The state hires and pays 11 technical and professional workers in the extension office at an added expense of about $150,000.

RESEARCH SUBSIDIES

IID is conducting three experiments in cooperation with (being subsidized by) government agencies.

To control weeds in the canal system, an African fish is being introduced with help from the California Department of Fish and Game.

Pollutants in irrigation and drainage water are being monitored with help from the U.S. Geological Survey.

Water consumption and drainage problems are being studied with help from the U.S. Department of Agriculture.

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U.S. Department of Agriculture operates an experimental farm in Imperial at an annual cost of ____________.

University of California operates an experimental field station in Imperial at an annual cost of ~~$[illegible]~~ 224,000.00

Almost every advancement in farm mechanization, new chemicals and crop managment techniques has been developed through research projects conducted at the University of California. These new methods are primarily responsible for the drastic decline in farm jobs. The University has done nothing in research to help improve the conditions of farm labor.

ELECTRIC SUBSIDIES

As noted earlier a disproportionate share of the Colorado River Dam costs are charged off to electricity. Nothing is charged off to irrigation. Power users, mainly city dwellers from as far away as Los Angeles, subsidize irrigation for Imperial. This electric subsidy is compounded in IID, itself. The district acts as an electric utility. It distributes power; some of which it generates at drops along the All-American Canal, some of which it generates with steam, gas and diesel plants and some of which it buys from the Bureau of Reclamation. IID rates are relatively high for a public power agency, not becausa costs are particularly high, but because the district uses its electric revenues to give the irrigators another subsidy. Paul Post recently retired general superintendent of IID power sales, says that subsidy was planned from the beginning and has been carried out. The 1969 IID annual report shows that the power division paid to the federal government $420,000 to cover canal costs; the water division paid nothing. In previous years comparable but lesser amounts were paid from the same power account. On close look, IID's financial statment reads like a report from a power company, not an irrigation district.

1969 Imperial Irrigation District Annual Report

water sales	$5,700,000
electric sales	$13,000,000
rural delectric sales	$600,000
residential, commercial electric sales	$12,000.000
public agency electric sales	$400,000

Water deliveries

cities, towns..............................240,000 acre feet
irrigation............................2,500,000 acre feet

Town residents in Imperial -- including poor people welfare recipients -- pay high electric rates so the big landowners can get cheap irrigation water.

ILLEGALLY LOW FARM ASSESSMENTS

In the mid-60s local crusading Dr. Ben Yellen began exposing "fake low assessments" on farm properties. By comparing sale prices to values assessed by the county for tax purposes, he found that farm land was being assessed from 6% to 12% of market value, while cityland was being assessed at 25% to 35%. A state Homeowners Association study confirmed Yellen's charges. In 1966 Yellen announced for county assessor. He ran a close third, but the "swindler" incumbent was defeated anyway. The victor: a man who had just quit as assessor-tax collector for the IID.

A spot check in February 1971 seems to indicate that the "fake low assessments" of six or seven years ago are not quite as fake as they used to be; but the farmers still seem to be favored. Farmland tends to be assessed at near market value; cityland, overassessed. And it seems that the most gross overassessments occur on the cheaper houses. The old-soak-the-poor philosophy of Imperial County is being carried into the 70s. To substantiate these charges a complete study of county land sales for the past year would be required.

CHEAP LABOR

Squashed tight yp against Imperial's southern line is the colossal Mexicali slum, Mexico's fastest growing city. Stories of Yankee gold draw literally hordes of destitute "campesinos" here from the sparse interior. Mexicali's population is soaring over 450,000. The whole of Imperial County is only 74,000. The pressure on the border is lean, hungry and relentless. Legal border crossings have risen from 8.9 million in 1965 to over 11 million in 1969. The apprehension of illegal Mexican aliens in the Imperial district has nearly doubled in five years. The U.S. border patrol picked up 6,933 wetbacks in 1965; 13,556 in 1970. At least 90% of Imperial's 7,500 farm jobs are held by commutors from Mexico -- legal and illegal. The border patrol is outrageously undermanned and demonstrably unethusiastic about the wetback issue. It is an open community secret in Imperial that thousands of Mexicans work illegally on the U.S. side of the border. Some are wetbacks who cross surreptiously, either evading the border patrol or passing with forged papers. Others cross "legally" as visitor or shoppers and stay on illegally to work. Many middle and upper class Imperial households have cheap domestic help in this category, and illegals are known to work in many different Imperial jobs and hundreds of miles north of the border.

(Ironically, one illegal was exposed recently working for a war on poverty program in Fresno nearly 500 miles north of Mexico. He had been there three years.)

The border pressure works both ways: workers want to go north; business wants to move south. Under a convenient no-duty entente, some 69 U.S. owned assembly plants are operating in Mexicali. Perhaps the largest employer in this catagory is Mattel Toys which has 2,000 workers in a Mexicali plant.

Their wage rates: $2.24 to $3.60 a day, sometimes slightly more for piecework. The people work six days, earn about $22 weekly.

The burden of this nearly open border and the concentration of land ownership is reflected in Imperial's stagmant economy.

Donald W. Baerresen, research director of the Center for Advanced Studies in International Business in Los Angeles says, "Here in Southern California much of our staggering welfare costs is due to the overflow, legal and illegal, of indigents across the border."

Between 1960 and 1970, Imperial County's population remained static at 74,000. The percentage of Anglos declined from 59% to 52%; Chicanos increased from 33% to 37%.

Over 75% of the county's low income families live in Calexico, the tiny (10,000) community just across the border from Mexicali.

Between 1960 and 1969 while farm jobs declined 50%, construction jobs dropped 10% manufacturing jobs remained static.

Over 24% of Imperial County is on poor people's welfare.

The doctor-patient ratio in Imperial County is one for every 2,300 while the national average is one for every 650.

A 1970 U.S. Department of Labor study concluded:
(1) "Commutors generally are paid the same wage rates as residents of the border community, but wage rates in most border areas are lower than in the remaining sectors of the border states and lower than the national averages for similar industries....
(2) "Unemployment rates on the United States side of the border... are far higher than the average unemployment rates for the border states and are among the highest in the country...
(3) "Border areas have a relatively high incidence of federal wage-hour violations."

Clearly, the concentration of landownership, much of it absentee, is sucking the local wealth out of the county.

Clearly, American corporate socialism, both agricultural and industrial, is exploiting the poverty on both sides of the border. The poor, in effect, are subsidizing the rich through cheap wages, just as the rich are being subsidized through various welfare programs they have courtesy of the U.S. government.

Dr. Yellen has filed suit in Washington, D.C. federal court in an attempt to have the Bureau of Reclamation set the electric rates for IID. Federal law requires that when the state Public Utilities Commission does not set rates for such as IID, the federal government must.

Yellen also promoted California Rural Legal Assistance (CRLA) to file a one-man, one-vote suit against IID, because the voting districts were not close to equal. Judge Kirk in the Imperial Superior Court ruled against CRLA. The case was appealed and demanded to Kirk. CRLA will seek to have Kirk disqualified this time around. For over 10 years before becoming a judge, Kirk worked in the law firm which represented IID.

Mr. Ballis. In trying to verbally summarize all of those four things, I am going to mention some specific names of specific people and specific companies, and I don't want to leave the impression that these are necessarily the bad guys, because I don't think they are bad guys. Most of the people I mention are upstanding members of the community, they support children's hospitals and United Giving and Boy Scouts and they get medals from the Pope and all that sort of stuff, and, to my knowledge, only one of them beats his wife.

What I am going to use them for is illustrative purposes. It is my basic contention that the law and the ethics of our society specifically encourage the exploitation of land and the speculation in land at the expense of the people who live and work that land, whether they be white, black, Indian, Chicano, it doesn't make any difference. I think that has been so in our country since the very beginning. Slavery, it seems to me, is only the most outrageous example of that.

Even in historic instances when the so-called common good has been explicitly legislated, the weight of that ethic, that exploitative ethic of ours, has demanded an administration which has subverted the common good in the interest of expended exploitation. There are, I don't know, a hundred legislative acts, I think, which illustrate that point, and I will mention just a couple.

First of all, the Homestead Act was passed in Lincoln's days and the propaganda around that was that each settler and his family were going to get 160 acres and a mule. Within a couple of decades the speculators had cut the cream off the top of all the land that was available. In 1902 under the first Roosevelt administration, the Reclamation Act was passed. We were going to open up the West and a settler and his family were going to get 160 acres of water and we were going to prevent water monopolies as Berge Bulbulian pointed out earlier. That law has never once been effectively enforced.

During the second Roosevelt administration we had the crop subsidy program. The rationalization for giving money to the farmers was that we were going to keep small farmers on the land, guarantee them an income, and they wouldn't go running off to the cities and create slums. It was a great idea, but, within a few years, that also was turned upside down and for the past 30 years the crop subsidy program has been used to enrich and encourage huge corporations to go into agriculture and force small farmers off the land.

How about the war on poverty? That is the Johnson administration and the Kennedy administration. That is a great idea, too. The Government is going to help the people fight poverty. But in the administration of that program the two most effective proven ways in this country to fight poverty were very quickly administratively outlawed and this have been so since. There are two ways in this country for oppressed minorities, oppressed groups, whether minority or majority type people, to be able to improve their economic conditions as a group. One is to organize unions, specifically prohibited by the war on poverty. Two is to take over local governmental agencies which pass out money, like the Irish did in the eastern cities. You can't do that either in the war on poverty. You can't organize politically and you can't organize economically under the war on poverty, so all you can learn to do in the war on poverty is to dress right and to speak correct English, which doesn't necessarily put any beans in the pot, and it certainly doesn't upset the applecart of the powers that be.

Now, there are other things which I won't get into. Model cities is the same sort of thing. It enriches the people already in power under the pretext of giving people some control. Urban renewal is the same thing. In California we have what is known as the Williamson Act. Under the Williamson Act, another very great idea, what we were going to do was to help farmers stay in the farming business and not tax their lands so heavily that they would be forced to sell to subdividers. That is a great idea. If a farmer agreed to keep his land in agricultural production and was near a city, you would give him a lower tax rate. That is a good idea and I don't think there's anybody who disagrees with it. But the way it's been administered in California is that every large landowner has all of his land under the agricultural preserve and thereby cheats the other people on taxes.

For instance, in Fresno County, on the west side of Fresno County, I will show you a map in a minute, which is dominated by large holdings, Southern Pacific, Anderson-Clayton, those sort of corporations, all of their land, 70, 80, 90 miles from the nearest city, is in agricultural preserve. By putting it in a preserve, their taxes are lower. As a result Fresno County alone last year lost $5 million in taxes. They didn't actually lose it. The $5 million in taxes was shifted to the small businessmen and homeowners of the city.

What happens? I would like to go back before I turn out the lights and show this map, and talk about politics, because I think it is very important that we understand that, as far as these issues are concerned in California, there is no political party and somebody, some great journalist one day wrote—and I forgot his name—that there has never been a great Senator from California because every senator from California is dominated by large landholders, to a man.

For instance, in Imperial County, just to take a piece out of that report, the Federal Government has had a suit going to enforce the 160-acre limitation. There is a judge who ruled on that case last year. He ruled against the enforcement of the law. Before he was made a judge, that man was in the law firm which represented the Imperial Valley Irrigation District, which is the large landowners in the Imperial Valley. At the time that the Government was drawing up its case, 1966–1967, in the Imperial Valley case, the Imperial Valley landowners organized the Natural Resources Associates to raise money to fight that case. The leading organizer of that campaign was a man named Long who at that time was the vice president of the Irvine Ranch. He is now vice president of the Bank of America and I understand is going to testify here.

In many of the speeches that he made at that time he said that the small farmers were going to be hurt by the enforcement of the acreage limitation. He went around and raised money from these large landowning folks, and they hired a law firm. The law firm was O'Melveny and Meyers, a large Los Angeles law firm. At the time that O'Melveny and Meyers were representing the Natural Resources Associates of the Imperial Valley a senior partner of O'Melveny and Meyers was working as an Under Secretary or Assistant Attorney General to the Justice Department in Washington.

Now, it might be said that O'Melveny and Meyers had sort of a shuttle service between their offices in Los Angeles and Washington because they always had a man strategically located in a Federal office and when statewide political campaigns come up in California O'Melveny and Meyers has some radical Democrats and some very conservative Republicans, so that they also have a man in every leading campaign, whether the candidate is Norton Simon, Rafferty, Tunney, Cranston, or whoever it might be.

Now, at the same time in the Imperial Valley that the Federal Government was bringing their case to enforce the law, the case which I always call sort of a strawman kind of a case, the Commissioner of the Bureau of Reclamation went to El Centro in the Imperial Valley and spoke to a dinner of the ranchers in which he said that the 160-acre limitation is not a very good law and ought to be changed, and he is charged with enforcing the law.

Now, this all sounds very scandalous, but, you know, in terms of power, it is very reasonable. On certain kinds of issues, it is the large landowners' government and they get out of their government what they want and sometimes they get it legally through the law and sometimes they get it illegally when an attorney general signs legal opinions on New Year's eve at midnight, and they get it from Kennedys and they get it from the Eisenhowers, and they get it from the Pat Browns and they get it from the Ronald Reagans.

I would now like to show this map which sort of gives an idea of the land ownership pattern in one part of California.

This is a map of the San Joaquin Valley. This is Highway 99 (indicating). We have Bakersfield here (indicating), Tulare here (indicating), and Fresno here (indicating). Each one of these little squares represents one section of land, 1 square mile, 640 acres.

Do you see the red checkerboard here? That is Southern Pacific land, 210,000 acres in this part of the San Joaquin Valley which they got free from the Federal Government about 90 years ago for building a railroad, part of which was never completed.

The black holding down here in the Kern County is the Kern County Land Co., now part of Tenneco. In that part of Kern County there is 340,000 acres of land. That is roughly equal to a 1-mile-wide strip of land extending from San Francisco to Los Angeles. If you have trouble getting all of that, it is 6 miles wide from San Francisco to Sacramento. They obtained this land in a number of very interesting free-enterprise fashions, through what might be called political efficiency. They got one piece, 100,000 acres, this piece right here (indicating), on the last day of the Grant administration. How is that for long-range planning? On the last day of the Grant administration, March 3d, 1877, Congress passed what might have been called at that time a war on poverty measure for Civil War veterans. It was called the Desert Land Act and under the terms of this act a poor veteran and his family were allowed 640 acres if they went out and rode across that land and said it was desert land and agreed that they would go out and live on that land and improve it.

It is very strange, because this piece of legislation was sort of rushed through the Congress and signed by President Grant and the story didn't get to the newspapers very quickly. The story did get very fast by telegraph to two places in California, three places, to the Federal Land Office in Visalia and San Francisco and to the promoters of the Kern County Land Co. Over one weekend when the Federal Land Offices were closed to the public, they were open to the Kern County Land Co. The Kern County Land Co. sent in their employees, one after another, and they perjured themselves by saying, "I went on there and I rode over the desert lands. I am going to take the wife and kids out there and we are going to improve this land."

Over one weekend and in the beginning of the following week in San Francisco in the Federal Land Office they got ahold of 100,000 acres of land.

In those days the San Francisco Chronicle was what might be called a radical newspaper today. They started talking about the land barons and the land steal and all that sort of thing and the next thing you know the government appointed a Commission, I guess that is where we get that idea about Commissions, it is not anything new. They had this investigation and the Commission held hearings, just like they do today. Of course it was without television and all that. They got all of those Kern County employees up there one by one, they said, "Sure, the boss gave us the money to get that piece of paper and sure we gave the boss the piece of paper when we got out of the office," and most of the people had never even seen the land on which they filed.

The president of the Kern County Land Co. was also questioned by the Commission and he got up there and said, "Yup, that is what we did, and the reason we did it is because it takes large, efficient corporations to develop the West."

They kept the land; they still own it. In fact, they own a lot more of it. They have all of it but 360 acres, the 360 acres they gave for a new college in Kern County, and the college, fortunately, is right in the middle of that black spot. That is sort of nice, too; it's like eating your cake, giving it away, and still having a bigger piece, because what has happened is, when the college is built there, they will build a town around the college and the dormitories and restaurants and everything else. This is what Irvine Ranch has done in Orange County. I think Kern County Land Co. learned that trick from Irvine Ranch.

I guess everybody knows about Tenneco, so I won't go into that.

Over here (indicating) we have this orange piece that is called the Tejon Ranch, but it is controlled by the Los Angeles Times, which in part explains why the Los Angeles Times is interested in the price of farm labor, and irrigation projects.

We have another little piece, the purple piece up here (indicating) which is called the Boswell Ranch, which is 37,000 acres. It is controlled by J. G. Boswell Co. J. G. Boswell also controls, under several different other names, including his own, about 125,000 acres, and J. G. Boswell is one of the heavy owners of Safeway Stores, along with Norman Chandler of the Los Angeles Times, and they are sort of related by marriage, which is kind of like keeping the world in the family.

Safeway and the Los Angeles Times also own Shasta County where the Pit River Indians are having trouble. So that puts it all together. And Safeway Stores was the leading chain in the country in opposing the organization of farmworkers.

All of these folks, of course, all of these corporations hold directorships on the Stanford Research Institute which does all this welfare research. Boswell, of course, is the leading recipient of public welfare in the world, last year having received $5 million for growing and not growing various and sundry crops, like cotton and barley.

There is another man up here named Russell Giffen, and he doesn't have any particular color, but he owns 130,000 acres of land and he is the second largest recipient of public welfare in the world. He received about $3½ million.

Russell Giffen until last year was a member of the board of directors of Pacific Gas & Electric Co., which is, I think, one of the third largest public utilities in the world, and the Food Machinery Corp., which makes farm machinery and armored cars.

Right in the middle of this now we have the State water plan that was created by Pat Brown and John Kennedy. That is the water plan which Mr. Bulbulian mentioned that is going to deliver huge amounts of water to large corporations illegally through the courtesy of liberal Democrats. These guys don't care who they take their money from.

Also under construction alongside that canal is a freeway. Now, the freeway is being built by the Federal Government mainly and it is being built, it is my understanding, in direct violation of the guidelines for the Federal Highway System, because the Federal Highway System said that, I think, all urban areas over 50,000, or something like that, have to be connected by the Federal Highway System. This is Interstate 5, and the areas of over 50,000 that it misses will be Bakersfield, Fresno, and Modesto.

Now, this is sort of like long-range planning, too, because what happens is we have a transportation system and then we have heavily subsidized water and then, when somebody wants to build a new city or they are talking now about putting a branch of the University of California in Fresno County, you sort of figure now where is that going to be, and you know darned well, on the basis or Irvine Ranch and Kern County, what happened there, that the branch is going to be right next to or in the middle of the largest corporate land holding in Fresno County. It won't necessarily be the best location and it won't necessarily be the worst, but it will be the one which is determined by the power which controls that county, and not in the best interest of any education.

The subsidy on the water, by the way, the cost is going to be about $2,500 an acre for every acre which will be irrigated and the landowners who use the water will repay approximately $1,000 an acre.

I don't think this is particularly outrageous. I think it is a condition which exists and, if we understand how society is controlled, then we understand this is the way it will happen. These guys have the power; it is their government, so they will get what they want out of it. It doesn't make any difference who is in office. There is a radical friend of mine who was asked once during the presidential campaign of 1968, which I think is a pertinent point, as to whom he was going to support, whether it was going to be Nixon or Humphrey. He said, "Well, you know, I don't think it makes a whole hell of a lot of difference because, look at it this way, if you go down to the beach and watch these guys riding a surfboard and you see a guy who is really good on the surfboard, you don't say, 'Look at that guy push the ocean around,' you say, 'Look at that guy ride the wave.' So a good politician will be a man who rides the wave."

The problem here is to create a new wave, to create some new basis of power. As long as this power will subsist and is allowed to expand and is encouraged by the administrators who will not enforce the law, by the politicians who go down to Delano and wave a Huelga flag and go back to Washington and give all of California's water to the large corporations, this condition is going to exist, and it is going to get worse.

Now, the interesting part of this map is that it is really not, if you really look at it, a map of the San Joaquin Valley. This is a map of the Imperial Valley. This is a map of the Sacramento Valley. This is a map of Mississippi, and this is a map of the South China Sea, because the South China Sea has been divided up this way, too, by the same people who are interlocked with this setup.

Senator Stevenson. Is that map a part of materials you are submitting for the record?

Mr. Ballis. Yes.

Senator Stevenson. Is it a part of other materials?

Mr. Ballis. No.

Senator Stevenson. We will mark that exhibit 1 and expect to receive a copy of it for the record.

(The map, exhibit 1, has been retained in the subcommittee files.)

Mr. Ballis. I will say one more thing, then I will stop.

The latest example of how this system works, it seems some dedicated bureaucrat went down and started nosing around Kern County a couple of months ago on the crop subsidies, and under the program now a grower has to have a set-aside acreage in order to qualify to receive a subsidy, and they found that some of the growers were setting aside airstrips and desert land and stockyards in order to qualify for the crop subsidy, and some of the farmers doing this are officials in the Department of Agriculture back in Washington, and another who set aside an airstrip happens to be the chairman of the A.S.C. Committee in Kern County which is supposed to administer this law.

Senator Stevenson. Thank you, Mr. Ballis.

I am going to have to ask all witnesses to keep your statements as concise as possible or we won't have enough time to hear everybody.

STATEMENT OF AL V. KREBS, MEMBER OF THE STAFF OF THE AGRIBUSINESS ACCOUNTABILITY PROJECT, WASHINGTON, D.C.

Mr. Krebs. I would like to submit my full statement for the record, and I will just mention some of the highlights of my prepared statement.

Senator Stevenson. Your statement will be entered and made a part of the record and printed following your testimony.

Mr. KREBS. Mr. Chairman, the Agribusiness Accountability Project appreciates the opportunity to present testimony today on the implications of land use and ownership as it affects farmworkers, farmers, and consumers, particularly here in California.

My name is A. V. Krebs and I am here as a member of the staff of the Agribusiness Accountability Project, which is based in Washington, D.C. Our project is a public interest research organization that is sponsored by the Center for Community Change and the Project on Corporate Responsibility. We are funded by the Field Foundation.

For over a year now we have been attempting to document the nature and extent of the role of the big business in rural America.

In California, the terms "big business" and "land use" are almost synonymous, for nowhere else in this nation is land, vast tracts of land, deified as they are here in this State.

As Arthur Miller noted rather wryly in his "Lines from California," a "philosophy is a keen sense of land values and the patience to wait."

Despite the colorful legends about California the State never even had a frontier or real homesteaders, for it was already owned by a select few land barons before it ever came into the Union. Throughout the past 125 years, most of that land has remained the property of a few while being plundered for whatever would bring its owner a fast and profitable dollar.

We have cited some statistics on how rich California is in terms of agricultural production. In that sense it is really not surprising that Pacific Gas & Electric, in this ad which appeared in the New York Times a couple of years ago, shouted:

> Join the second gold rush. Discover the gold in agribusiness. The superbusiness nurtured by northern and central California's rich soil, ideal climate, plentiful water, and ingenious farming know-how. Big crops, and a big variety of crops make big business for farmers, processors, packagers, manufacturers, and countless other industries. It is all agribusiness, the No. 1 industry in gold rush country.

Mr. Chairman, like that first rich bonanza that came upon this State over some 100 years ago, this gold rush today also has its rather sordid and shameful side.

From the beginning, through a combination of massive land grabs, violence, foreign exploitation, political intrigue, slave labor, just plain greed, the frequent ignoring of State and Federal laws, the giant growing, processing, and packaging conglomerates like the Del Monte Corp., Tenneco, the DiGiorgio Corp., Sunkist Growers, with their interconnecting directorates, who control the vertical integrated flow of food from the field to the table, California's agribusiness has grown wealthier, more elite, and more powerful.

It is aimed at total control of the State's economy. In the process of doing so, it has enjoyed the enriching benefits derived from State and federally subsidized water and transportation, abundant amounts of money from Bank of America, and free and almost unlimited use of the research facilities of the land grant University of California, and exorbitant U.S. Department of Agriculture cash giveaways totaling nearly one-half billion dollars in crop subsidies just since 1966.

What has happened in the past in California and is even now intensifying is also beginning to take place on a grand scale throughout American agriculture. Large, impersonal, and often vertically integrated corporations are becoming the dominant force in rural America.

Land ownership, of course, remains the touchstone of agribusiness, particularly in California. We cite some figures not only of outright landowners but some landowners through subsidiaries. It is no accident that land concentration is so high in this State. In combination with the historical reasons mentioned earlier, it should be emphasized that U.S. farm programs have been more directed toward farm property values than the welfare of the people. No wonder the large growers in this State, backed by this kind of government policy, have parleyed their vast land holdings, with ready reserves of private capital, to amass huge personal fortunes.

The large farm corporations in this State today have, indeed, become unique creatures of the banks. Just as Dr. Frankenstein is remembered for his special creativeness, so the Bank of America in this State is revered by many for its ability to manufacture new forms from old bodies.

At one time the Bank, as recently as a couple of decades ago, was one of the largest landowners in the State, with nearly 600,000 acres. It was making a profit from agriculture of $642,000 a year.

I would direct the particular attention of the committee and also to the members of the press to the testimony you will be hearing, probably tomorrow in Fresno, from Mr. Peter Divizich and his experience with the Bank of America. The Bank has evidently not seen itself in any less of a role in dominating agriculture, as Mr. Divizich will be telling you.

It is no wonder, shortly before he stepped down, that the bank's chief executive officer, in 1968, Rudolph A. Peterson, when speaking to a California Canners and Growers luncheon said:

> Why is a banker talking about agricultural policy? Because Bank of America has a deep stake in agriculture. We are the world's largest agricultural lender with lines of credit for agricultural production running at about a billion dollars a year. Our total agricultural commitment is probably around three billion. We have been in agriculture a long time and we intend to stay in agriculture for a lot longer. In a very real sense, then, agriculture is our business.

Mr. Peterson, I should add, Mr. Chairman, is a good example of the modern agribusiness gentleman farmer for, in addition to serving as chairman of the Bankamerica Corp.'s executive committee, he is also a board member of Time, Inc., Kaiser Industries, Broadway-Hale Stores, Standard Oil of California, Consolidated Foods, and is one of three bank board members serving with the DiGiorgio Corp.

The agribusiness accountability project has prepared for the hearing a profile of California agribusiness, which attempts to demonstrate the deep inroads that giant corporations have made into the State's agricultural economy. Some of the activities of corporations like Pacific Lighting Corp., as Mr. Miller noted, a utility company moving into diversified areas, is documented here.

We focus our attention only on 50 major corporations, making subjective selections to indicate a wide range of agribusiness holdings.

An examination of this profile would show that these 50 corporations not only have deep roots in California agribusiness, but also are integral parts of the national corporate power structure. Agribusiness in California may not be any more Californian than it is rural. Agribusiness is corporate power, period. The agribusiness accountability project has found that one does not go into the fields to fight agricultural power today, one goes to the financial districts of the cities, from Montgomery Street in San Francisco to Wall Street in New York.

It is important to know, for the committee to know, what this profile is not. It is not intended as a complete directory of the agribusiness community in California, nor do the individual profiles attempt to exhaust the picture of the corporation and its agribusiness involvement. Rather, this profile simply is an indicator of the kind of financial power that is at work on the land throughout rural America.

I should add that, under present laws of corporate disclosure, it is impossible to get a focus on the true nature and extent of corporate domination of rural America. Whether you are a public interest research organization, an independent family farmer, an agribusiness stockholder, or even a U.S. Senator, you must engage in an absurd and frustrating game of corporate hide-and-seek just to obtain a rough picture of American agribusiness.

Before Senator Nelson's Subcommittee on Monopoly, we presented testimony which we would like to enter in the record of this committee, demanding greater corporate disclosure laws, particularly in the realms of agribusiness and agriculture.

Senator STEVENSON. It will be entered in the record, and some of the material will appear in the appendix. You are also entering a profile of California agribusiness in the record, too, is that correct?

Mr. KREBS. Yes, that's right.

(The prepared statement of Mr. Krebs follows:)

Statement of the
Agribusiness Accountability Project
Before the U. S. Senate
Migratory Labor Subcommittee
San Francisco, California
January 11, 1972

AGRIBUSINESS AND LAND IN CALIFORNIA

Mr. Chairman, the Agribusiness Accountability Project appreciates the opportunity to present testimony today on the implications of land use and ownership as it affects farmworkers, farmers and consumers, particularly here in California.

My name is A. V. Krebs and I am here as a member of the staff of the Agribusiness Accountability Project which is based in Washington, D. C. Our Project is a public interest research organization that is sponsored by the Center for Community Change and the Project on Corporate Responsibility. We are funded by the Field Foundation. For over a year now, we have been attempting to document the nature and extent of the role of big business in rural America.

In California, the terms "big business" and "land use" are almost synonymous, for nowhere else in this nation is land, vast tracts of land, deified as they are here in this state. As Arthur Miller noted rather wryly in his Lines from California, "a philosophy is a keen sense of land values and the patience to wait."

Despite those colorful legends we read about and often see on TV, California never even had a frontier or real homesteaders for it was already owned by a select few land barons before it ever came into the Union. Throughout the past 125 years, most of that land has remained the property of a few while being plundered for whatever would bring its owner a fast and profitable dollar.

A Second Gold Rush

California today leads the nation in food production:

--it furnishes 25 percent of the U. S.'s table foods, the largest single producer of over 50 of the some 200 common crop varieties used in this country;

--it accounts for one-third of the nation's canned and frozen vegetables and fruits making food processing, canning and packaging alone a $2.5 billion industry;

--it purchases over $1.8 billion of seed, fertilizer, machines--and labor, each year;

--its cash farm receipts are over $4.5 billion, making agribusiness in this state worth over $16 billion, a value which exceeds that of its production of aircraft and transportation equipment, the next largest industry, and four times that of California's petroleum production;

--eight of the top ten agricultural counties in the U. S. by value of all farm products sold are in California as three percent of the nation's farms and farm acreage account for almost 10 percent of the total U. S. cash farm receipts.

No wonder this Pacific Gas and Electric ad which appeared a couple of years ago in The New York Times shouts: "Join the second gold rush! Discover the gold in Agribusiness: the...super-business nurtured by Northern and Central California's rich soil, ideal climate, plentiful water and ingenious farming know-how. Big crops--and a big variety of crops--make big business for farmers, processors, packagers, manufacturers and countless other industries. Its all Agribusiness--the number one industry in Gold Rush Country...."

But Mr. Chairman, like that first rich bonanza that came upon this state over 100 years ago, this "gold rush" today also has a sordid and shameful side.

From its beginning--through a combination of massive land grabs, violence, foreign exploitation, political intrigue, slave labor, greed, the frequent ignoring of state and federal laws, and giant growing, processing and packaging conglomerates (like the Del Monte Corp., Tenneco Inc., DiGiorgio Corp., and Sunkist Growers, Inc., with their interconnecting directorates) who control a vertically integrated flow of food from the field to the table--California's agribusiness has grown wealthier, more elite, and more powerful.

In its quest for total control of the state's economy, agribusiness has enjoyed the enriching benefits derived from state and federally subsidized water and transportation, abundant amount of money from Bank of America, a free and almost unlimited use of the research facilities of land-grant University of California, and exorbitant U. S. Department of Agriculture cash give-aways totaling nearly one-half billion dollars in ASCS subsidy payments alone since 1966.

But what has happened in the past in California and is even now intensifying here, is also beginning to take place on a grand scale throughout American agriculture: large, impersonal and often vertically integrated corporations are becoming the dominant force in rural America.

The Agribusiness Accountability Project believes that it is time to ask some rather fundamental questions about the role of big business in agriculture.

If agribusiness is to become what PG & E called a "super-business," are consumers, taxpayers, citizens and laborers alike willing to pay an exacting price for an unappealing sameness in their food, a publicly paid for but privately profitable corporation, a blighted rural landscape and a chaotic and crowded urban environment with able-bodied workers being replaced by machines?

Land and Land Ownership

Land and land ownership, of course Mr. Chairman, remains the touchstone of agribusiness, particularly in California. In 1969, the Agricultural Extension Service of the University of California and the Economic Research Service of the U. S. Department of Agriculture found in a survey that 6.1 million acres of land out of a total of 11.8 million acres of cropland were owned by corporate farms, with 45 farms (less than one-tenth of one percent of the state's commercial farms) controlling 3.7 million acres or 61 percent of the land surveyed.

Some of these large California agricultural landowners include:

--Vista del Llano Farms (Anderson Clayton, Inc.)--52,000 acres
--South Lake Farms (Bangor Punta)--60,000 acres - 40 acres leased
--San Francisco and Fresno Land Co. (Bank of California, N.A.)--
 7500+ acres
--Blue Goose Growers, Inc. (Pacific Lighting Corp.)--6,000 acres
--Southern Pacific Co.--163,000 acres
--Tenneco, Inc.--362,540 acres - 33,698 acres leased
--Standard Oil Company of California--306,000 acres
--Purex Corp.--30,000 acres

It is no accident that land concentration is so high in this state. In combination with the historical reasons mentioned earlier, it should be emphasized that U. S. farm programs have been more directed toward farm property values than the welfare of people. No wonder the large growers in this state, backed by this kind of government policy, have parlayed their vast land holdings with ready reserves of private capital to amass huge personal fortunes.

The large farm corporations in this state today have indeed become the unique creatures of the banks. And just as Dr. Frankenstein is remembered for his special "creativeness" so the Bank of America in this state is revered by many for its ability to manufacture new forms from old bodies.

Between 1926 and 1930, Bank of America reportedly foreclosed on some 1,321 farms. It abandoned the least profitable ones to the government for unpaid taxes and through an affiliate, California Lands, operated some 2,642 farms by 1936, growing over 60 crops and realizing an annual profit of $643,000.

In the early 1940's, after becoming the state's biggest landowner with over 600,000 acres, the Bank began selling off its choicest properties to select growers. A look at the Bank's board of directors today shows how it has successfully concentrated agribusiness in California.

Shortly before he stepped down in 1968 as the Bank's Chief Executive Officer, Rudolph A. Peterson asked a California Canners and Growers luncheon:

> "Why is a banker talking about agricultural policy? Because Bank of America has a deep stake in agriculture. We are the world's largest agricultural lender with lines of credit for agricultural production running at about a billion dollars a year. Our total agricultural commitment is probably around $3 billion. We've been in agriculture a long time and we intend to stay in agriculture for a lot longer. In a very real sense, then, agriculture is our business."

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"A Profile of California Agribusiness"

The Agribusiness Accountability Project has prepared for this hearing a "Profile of California Agribusiness," attempting to demonstrate the deep inroads that giant corporations have made into the state's agricultural economy. We focused our attention only on 50 major corporations, making subjective selections to indicate a wide range of agribusiness holdings.

An examination of this Profile will show that these 50 corporations not only have deep roots in California agribusiness, but also are intergral parts of the national corporate power structure. Agribusiness in California may not be any more "Californian" than it is "rural." Agribusiness is corporate power, period. The Agribusiness Accountability Project has found that one does not go into the fields to find agricultural power today---one goes to the financial districts of the cities, from Montgomery Street in San Francisco to Wall Street in New York.

It is important to know what this Profile is not. It is not intended as a complete directory of the agribusiness community in California, nor do the individual profiles attempt an exhaustive picture of the corporation and its agribusiness involvement. Rather, this Profile simply is an indicator of the kind of financial power that is at work in rural California and throughout rural America.

Under present laws of corporate disclosure, it is impossible to get a focus on the true nature and extent of corporate domination of rural America. Whether you are a public interest research organization, an independent family farmer, an agribusiness stockholder or even a United States Senator, you must engage in an absurd and frustrating game of corporate hide-and-seek just to obtain a rough picture of American agribusiness.

On November 23, 1971, the Agribusiness Accountability Project appeared before Senator Gaylord Nelson's Subcommittee on Monopoly. In our testimony, we called for more comprehensive public disclosure laws concerning agribusiness corporations. Project Director Jim Hightower noted:

> "Corporate agriculture today affects far more than the investing public, and it is essential that we expand the traditional rationale for disclosure. Corporate agribusinesses are making private decisions that are having an enormous---maybe devastating---public impact. Putting aside the questions of whether we can control those decisions, at least the American public and their policy makers have a right to know about them."

We renew that call here today for greater corporate disclosure. It is an essential first step toward restoring some semblance of balance to the power relationship between the American people and American business.

Needed: Land Reform

Corporate disclosure, however, is only one step toward challenging big business' invasion of agriculture. What is needed most urgently today is some serious thought and action on the question of land reform in the United States.

As a model aimed at making corporate America more responsive to the common good, economist John Kenneth Galbraith has suggested that the railroads of the country be nationalized. The Agribusiness Accountability Project endorses that suggestion, for we see in such an action a chance to demonstrate an effective land reform program. The Project calls for federal repossession of the massive land holdings awarded the railroads years ago, and we call for a redistribution of those lands into family-farming parcels that would be large enough to be economically efficient and commercially viable.

Nationalizing a railroad like the Southern Pacific Company, for example, would mean that the federal government could repossess and redistribute more than 3.8 million acres of land that originally belonged to the people of Nevada, Utah and California. Certainly, such a plan would bring about a large measure of the true land reform needed in America, where more than 70 percent of the population is squeezed onto less than 2 percent of the land. California, were less than 10 percent of the farms own more than 75 percent of the available cropland, is a state where land reform is a critical need.

Redistribution of public lands, presently in the hands of the railroads, would be one step toward helping the little man of this country, and it would be a welcome step away from the long-standing federal practice of subsidizing large corporations at the expense of millions of rural Americans who want to remain rural, but who are being forced instead to live on the fenced-in concrete of our cities.

The Project also enthusiastically endorses the aims of the newly-formed National Coalition for Land Reform, based here in California. The Coalition is right in its statement that "ownership of land by those who work and live on it is the key to alleviating rural poverty, easing urban overcrowding, reducing welfare costs and unemployment, protecting the rural environment and building a stronger democracy." The Project will work with the Coalition and support its effort every chance we get.

In addition, there is much to commend in the pending Reclamation Lands Authority Act sponsored in the Senate by Senator Fred Harris and in the House by several California Congressmen. The buying of "excess land" at pre-water prices by a special, presidentially-appointed board and selling or leasing that land at post-market prices, with profits going into an education, conservation and economic opportunity fund is a progressive concept, an effective step toward land reform and a welcome investment in rural people.

Senator Nelson's Family Farm Act of 1972, also introduced in the House by Representative Abourezk, is an equally important means toward barring large corporations from permanently establishing themselves in agriculture. Placing these corporations under the anti-trust and monopoly provisions of the Clayton Act would allow efficient family farms to prosper once again and to help stabilize our rural communities.

If true land reform is to flow from these kinds of suggestions, however, it will be necessary to shore-up the government's anti-trust enforcement capabilities. At present, that capability is inadequate, as demonstrated recently by the decision of the Federal Communications Commission to drop its proposed study of the giant AT&T. Another indicator of our government's enforcement potential is the fact that the entire budget of the Justice Department's Anti-trust Division is only 1/20th of the advertising budget of Proctor and Gamble.

If the anti-trust and monopoly laws of this country were to be enforced, agribusiness would feel an immediate impact, for market control has become the name of the game in agriculture. "Put the pro in produce," Tenneco reminds us.

Large, vertically-integrated corporations are the dominant (and increasingly overwhelming) force in American agriculture. These are giant processors, feed companies and others "up" the food line, either growing their own crops on their own land or making one-sided contracts with independent farmers, forcing the farmer to serve the corporate interest rather than his own. These also are the corporations that are moving off to Mexico to exploit even cheaper labor there and to undercut the independent producers here at home. Their motive is profit, period. They have demonstrated a willingness and an ability to exercise their economic power in about any way that will increase that profit, even if that may not be in the best interest of rural America. Alfred W. Eames, Jr., the Chief Executive Officer of the Del Monte Corporation, expressed this single-mindedness of agribusiness in this statement:

> "Del Monte's corporate game plan calls for continuing development based on our established strength in producing, distributing, and marketing food. Within

> that framework we will continue to explore specific opportunities offering the potential for above-average earnings growth."

Mr. Chairman, our proposals here today may seem a bit radical to some, but they are tame indeed when measured against the truly radical changes---often violent changes---that have been wrought in rural America by agribusiness interests. Certainly our proposals are modest when you consider the enormity of the problem with which we are faced: how to make giant corporations, particularly the dozens that are invading agriculture, more accountable to the public that they should serve.

In California, the problem is particularly acute because of the enormous power which agribusiness has bought over the past 125 years. It overshadows all of California's public and private institutions, its businesses, its politics, its educational system and its social life. As Anne and Hal Draper have written in their excellent pamphlet, The Dirt on California: Agribusiness and the University:

> "It would be an exaggeration to say that agribusiness is the master of the social order in California, but it would be an exaggeration only because agribusiness shades into the financial power structure so neatly, and it is that combination which is the master."

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[From the San Francisco, California Agriculture, February 1970]

MONTGOMERY STREET: HOW IT CONTROLS CALIFORNIA AGRICULTURE.—
HAWAII: REPORTS ON CONSERVATION, TOURISM, SPORTS

THE SECOND GOLD RUSH

(By A. V. Krebs, Jr.)

Join the second gold rush! Discover the gold in Agribusiness . . . Big crops—and a big variety of crops—make big business for farmers, processors, packagers, manufacturers and countless other industries. It's all Agribusiness—the number one industry in Gold Rush Country.—*From an ad for PG&E in the* N.Y. Times, *Dec. 11, 1968.*

Corporate giants are striking it rich in the fields of California. A mesh of interconnecting directorate—composed of executives from banks, utility companies and other mammoth corporations—controls the flow of food from field to table. The large corporate farms that control California agriculture have become creatures of the banks.

Ever since the wealthy miners of California's first gold and silver bonanzas returned to San Francisco with their fortunes a century ago, this City has been the financial capital of the West. Today, in the midst of what the Pacific Gas and Electric Company advertises as the "second gold rush" the City is again prospering—this time from the wealth being taken by farmers out of California's rich and fertile land.

But these farmers are not the individualistic, industrious men America has so long revered, who work from dawn to dusk seeking to provide by the sweat of their brows a modest living for them and their families.

They are rather the same corporate giants such as Bank of America, Southern Pacific, Wells Fargo Bank, the Di Giorgio Corp., Kern County Land Company and others who have for so long controlled the political and social destinies of California.

In close alliance with the utility companies, such as PG&E and Pacific Telephone Co., and other huge growing, processing and packaging conglomerates like Safeway Stores, Inc. and Del Monte Corp., with their interconnecting directorates they control a vertically integrated flow of food from the field to table.

At present, California leads the nation with a $4.3 billion total cash farm income. It grows 40 per cent of the nation's vegetables, fruits and nut crops. It raises 90-100 per cent of the total U.S. production in 15 crops and leads the nation in another 25 crops. By the time the 200 commercial crops are harvested, transported, processed and packaged their market value reaches some $16 billion. One of every three jobs in the state is dependent on agriculture or a closely related industry.

Despite its great economic and political power, agribusiness in California still rests on the backs of 750,000 ill-housed, ill-fed farm workers who in 1967 earned an average of $2024 ("the highest paid farm workers in the U.S.," according to state agribusiness spokesmen).

The efforts of Cesar Chavez's United Farm Workers Organizing Committee (AFL-CIO) in the last four years to gain better conditions and wages for these workers through union recognition and collective bargaining (rights denied by law to agricultural laborers) has now begun to cause some uneasiness within the S.F. business community.

For it is in the buildings on Montgomery Street and that immediate area where historically the important decisions that inevitably determine the wages and working conditions of the state's farm laborers are made. Citizens of San Francisco, both the rich and not-so-rich, play important roles in making these decisions.

Long before John Steinbeck wrote his classic *Grapes of Wrath*, farm workers were seeking better wages and conditions through orgainzation. Beginning with the Chinese, who were brought to this country by S.F.'s "Big Four" in the late 1800s to work on the continental railroad and then later dumped into the San Joaquin Valley, this City's entrepreneurs have contolled the lives of Japanese, Hindu, Armenian, Portuguese, Italian, Mexican, Filipino, Negro and Mexican-American farm workers used in California for over a century to grow and harvest its bountiful crops.

It was in the depression-ridden Thirties that a major effort was made by a variety of unions—including some that were backed by the Communist Party—to organize farm workers. When the threat that they might succeed became so immediate, vigilante groups were formed to terrorize workers.

Chief among those groups was the Associated Farmers of California, Inc. with headquarters in San Francisco's Russ Building. The initial funds for the organization were raised by Earl Fisher of PG&E and Leonard Wood of California Packing Company.

A study by the Simon J. Lubin Society of California, Inc. in 1938 showed that some of the major contributors and backers of the Associated Farmers at the time included Santa Fe, Western Pacific, Union Pacific and Southern Pacific railroads, PG&E, Southern California Gas Co., Transamerica Corp., the State Chamber of Commerce, Joseph Di Giorgio and Mortimer and Herbert Fleishhacker among others.

Not only were the Associated Farmers responsible for enacting many of the anti-picketing and so-called "emergency-disaster" ordinances in many of the state's rural counties (which still exist today), but they also maintained a strong and powerful lobby in Sacramento.

Carey McWilliams has described this era in the state's history as "constitutional facism." In *Ill Fares the Land* he writes:

"The gentlemen who sit in their offices in San Francisco and Oakland and write checks to the Associated Farmers are not the men who, wearing the arm-bands of the group, organize mobs to browbeat and coerce agricultural workers. They have cleaverly stimulated the farmers and townspeople to act as their storm troopers. Nevertheless, the real headquarters of vigilantism in California are to be found on Montgomery Street in San Francisco and not in the great valleys of the state."

A somewhat less violent but quite vocal version of the Associated Farmers (boasting that they are "the second largest statewide farm organization") still exists today with offices at 225 Kearny. It is reported that they maintain one of the state capitol's highest-salaried lobbyists.

At their 1968 convention the organization not only called for state and federal legislation to outlaw the UFWOC"s national table grape boycott but also passed resolutions opposing extension of unemployment insurance coverage to farm workers "because it would undermine motivation and place a premium on idleness"; opposed any legislation "designed to guarantee or force collective bargaining rights for farm workers"; asked that the *bracero* program (which was terminated in 1965) be transferred from the Department of Labor to the Department of Agriculture; and called for an investigation of the State Industrial Welfare Commission's right to establish a $1.65 minimum wage for women and children.

While it is not known whether the Associated Farmers still enjoys the financial backing of their past patrons, many of those same giant corporations, along with the California Farm Bureau, the Council of California Growers and the State Chamber of Commerce, maintain a powerful lobby in Sacramento and Washington, D.C.

(When the Delano table grape boycott first began to attract national attention, the State Chamber of Commerce sent more than 80,000 letters to business leaders, trade associations, and chambers of commerce throughout the nation urging opposition to UFWOC's action, calling the campaign an effort to organize workers by "blackmailing their employers.")

Many Congressmen and U.S. Senators have been heard to echo former U.S. Secretary of Labor James Mitchell's words that California agribusiness is "the toughest lobby of all" in Washington. There are many examples of this lobby's political and financial power.

During the S.F. Board of Supervisors' debate in 1968 to determine whether the City should support the Delano boycott, it was learned, although none on the Board would say who publicly, that several of them had been approached by powerful members of the State Legislature from agricultural areas who told them that San Francisco could well face retaliation on City projects if it did not drop the boycott issue.

Grape growers, who have suffered a 25-35 per cent loss in sales because of the boycott, have managed in an unusual exercise of power to convince the U.S. Department of Defense to increase their shipment of table grapes to Vietnam by more than 800 per cent in the last two years.

It is reported that many pounds of the two million shipped in the first half of fiscal 1968–69 are either rotting in Saigon warehouses or being sold on the local blackmarket for $42 per 26-pound box. (California growers have recently been receiving between $3.25 and $3.75 a box for these same grapes.) Many shipments of these grapes destined for Vietnam have been moving freely across Bay Area docks.

Another exercise in agribusiness' power came to light last summer when State Assembly Minority Leader Jesse Unruh charged that "numerous California table grape growers are anxious to join in negotiations with the UFWOC, but are under pressure not to do so by more powerful, corporate growers." Unruh, however, when questoned by this writer, declined to name the specific "corporate growers."

UFWOC picket captains report that some growers have told them in the past four years that they would be willing to negotiate a contract with the union, but if they did it was highly likely that their bank would not extend further credit to them.

In a state where seven per cent of the farms own 79 per cent of the land (and employ 75 per cent of the farm workers) the large corporate farms that presently control California agriculture have simply become creatures of the banks.

Financing more than half of all agriculture in California today is the Bank of America. The bank's recently retired president, Rudolph A. Peterson, in outlining "a new national agricultural policy" before the California Canners and Growers in November 1968, explained that corporation's role.

"Why is a banker talking about agricultural policy?" he asked. "Because Bank of America has a deep stake in agriculture. We are the world's largest agricultural lender with lines of credit for agricultural production running at about a billion dollars a year. Our total agricultural commitment is probably around $3 billion. We've been in agriculture a long time and we intend to stay in agriculture a lot longer. In a very real sense, then, agriculture is our business."

Peterson is also on the boards of Dillingham Corp. (which controls much of Hawaii's sugar crop), Time, Inc., Kaiser Industries, Consolidated Food Corp., the State Chamber of Commerce and the Di Giorgio Corp.

The latter firm, whose headquarters are in San Francisco, is headed by Robert Di Giorgio. Once one of the largest growers in California (and a longtime symbol to farm workers of anti-unionism), the Di Giorgio Corporation today has become an international consumer goods, forest products, recreational vehicle, distributing and land development complex.

Besides being president and chief executive officer of his own corporation, Di Giorgio is also on the boards of directors for Pacific Vegetable Oil Corporation, Broadway-Hale Stores, Union Oil Co. of California, New York Fruit Auction Corp., Philadelphia Fruit Exchange, Inc., Pacific Telephone and Telegraph, Bankamerica Corp. and Bank of America.

How the world's largest bank manages its agricultural loans, the property its owns and the workers who harvest the crops on that land came to public attention after the UFWOC charged that a 5000-acre bank-owned ranch in the strikebound Delano area was refusing to bargain collectively with its more than 500 employes.

Bank officials contended that their ownership was only temporary and that the land was leased to a firm called "Agri-Business Investment Co." The articles of incorporation for the leasing firm, however, showed as two of its officers attorneys employed by the bank.

The land's former owner, who after being allowed to run up a $7.8 million loan debt and forced into bankruptcy, had to sell it to Bank of America for $5.8 million. The bank also obtained a certificate of indebtedness and lien on all his crops (mostly table grapes), which means that he will probably be paying off the money he owes the bank for the rest of his life.

One union spokesman said that his union had signed up most of the ranch's workers and had asked the bank to negotiate with them, but their request was promptly rejected. In response, bank officials noted that although they were a major agricultural financier they were not themselves engaged in farming.

As one can see from the numerous positions held by ex-bank president Peterson (who was recently appointed by President Nixon to head a task force to reappraise the U.S. foreign aid program) and Di Giorgio, the labyrinth of agribusiness' interconnecting directorates begins here and eventually spreads into every major bank and large corporation in the state.

For example, PG&E's public relations campaigns have been handled in the past by Whitaker and Baxter Public Relations of San Francisco, the same firm that is presently spending a $1 million table grape growers' "war chest" in an effort to counteract the national boycott.

Another typical example of the influence and power men in agribusiness have today in California is Peter Cook Jr. In Pacific Telephone and Telegraph's *1968 Annual Report*, Cook is simply listed as "Farmer, Rio Vista." But Cook is more than just a farmer; he is vice-president and director of the California-Western States Life Insurance Co. and Westerlic Corp. He also serves on the boards of directors for Wells Fargo Bank, Emporium Capwell Co., Pacific Telephone and Telegraph Co., Western Pacific Railroad, and is a former member of the board of directors of the Kern County Land Company, which owns land twice the size of Rhode Island.

Wells Fargo Bank, with headquarters in San Francisco, is another large bank that numbers among its board of directors many in agribusiness. The bank's chairman of the board, Ernest C. Arbuckle, for example, is also a member of the executive committee of Safeway Stores, Inc. On Safeway's board there are men who, in serving as directors of other corporations, own nearly one million acres of land in California.

While farm workers go without adequate housing, food and decent wages, and California's small and marginal farmers continue to decline at a rate of 5000 a year, men like J. G. Boswell II, who sits on the Safeway board of directors, draws huge cash subsidies from the Federal Government for not growing cotton.

Besides owning more than 108,814 acres of California land and about 500 acres of table grapes in Arizona, Boswell's company leases some 25,000 acres from the famous Miller-Lux holdings which Carey McWilliams described in detail in his famous *Factories in the Field*. In 1967, for not growing cotton, the Boswell company received $4,091,818 in subsidies from the government's Agricultural Stabilization and Conservation Service. That same year 2270 cotton farms in four San Joaquin Valley counties—Kern, Tulare, Fresno and Kings—received $65,414,483 in subsidies.

In 1968 Boswell received approximately $500,000 from the Australian government for growing cotton on land he owns in that country, thus contributing his share to a bountiful world cotton market for which the United States, in an effort to protect its own prices, was obliged to pay Boswell more than $3 million to *not* grow cotton in this country!

This same company's 37,555-acre Boston ranch is also slated to be irrigated from the state and federally-subsidized multi-billion dollar Westlands Water Project. The federal subsidy on this project is estimated to be over $1000 an acre. Legally, only farms of 160 acres or less qualify for this type of subsidy but in California that law is often overlooked if not ignored by agribusiness.

With men like Boswell on Safeway's board of directors it is not difficult to understand why the nation's second largest retail food chain remains a major holdout against the UFWOC's efforts aimed at getting them to remove their table grapes from their shelves. The supermarket chain, which is the largest handler of California table grapes in the Western United States, buys more than 250 railroad carlots a year from the Giumarra Bros. Fruit Co.

Giumarra, who claims to be the world's largest table grape grower, owns some 3500 shares of B. of A. stock as part of his $25 million corporation.

Despite the UFWOC and other farm labor groups' efforts to "revolutionize" California agriculture, the trend toward corporate farming continues with Purex Corp., Dow Chemical Co. and the United Fruit Company emerging as new farmers in the state. San Francisco, of course, will continue to play a major role in these new businesses for as Richard B. Cooley, president of Wells Fargo Bank, has said:

"San Francisco is an executive headquarters city and much of its economy depends upon paper rather than products."

Or, as local trade unionist Anne Draper and her *New Politics* editor-husband point out in their recent pamphlet, "The Dirt on California: Agribusiness and the University":

"It would be an exaggeration to say that agribusiness is the master of the social order in California, but it would be an exaggeration only because agribusiness shades into the financial power structure so neatly, and it is that combinaton which is the master."

And it is in San Francisco, a city which prides itself for its freedom, its concern for social justice, and its achievements in labor organizing, where that "shading" takes place every day of the year.

COUNCIL OF CALIFORNIA GROWERS
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CARL F. WENTE
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March 17, 1970

Geoffrey Link, Editor
San Francisco
120 Green Street
San Francisco, California 94111

Dear Mr. Link:

On page 25 of the February 1970 issue of San Francisco, in a story by A. V. Krebs, Jr., the statement is made that, "while it is not known whether the Associated Farmers still enjoy the financial backing of their past patrons, many of those same giant corporations, along with the California Farm Bureau, the Council of California Growers and the State Chamber of Commerce, maintain a powerful lobby in Sacramento and Washington, D.C."

We won't presume to speak for the other organizations named, but the Council of California Growers never, in its ten years of existence, has maintained a lobby either in Sacramento or Washington. We do not endorse, oppose, support, or lobby for or against any legislation. We are strictly an informational, educational and public relations organization which seeks to reflect the thoughts, ideas, and attitudes of California agriculture.

Upon further reading of the story, we have come to the conclusion that the rest of the article shows about the same degree of accuracy as the statement concerning the C.C.G.

Analysis of the article reveals it as a poorly researched effort at muckraking. It really is a compilation of quotes and material from the same tired old sources which themselves have been proved of doubtful accuracy.

Let us examine another statement from the article. Mr. Krebs says there are "750,000 ill-housed, ill-fed farm workers who in 1967 earned an average of $2024." Report 830, no. 6, from Research and Statistics Section of the Department of Employment, entitled "Agricultural Workers Covered by the Disability Insurance Provisions of the Unemployment Insurance Code," (which is all farm workers) during 1967 shows that the MAXIMUM number of people who did ANY farm work that year was [illegible],797. This includes people who may have worked an hour, a day, a week, or just a few minutes.

This is only a matter of an error of 61,000, true, but that constitutes a pretty fair sized city. But more important, is the fact that the accurate figures are easy to obtain, if one really wants them.

Before we leave this subject of the farm work force, honesty in reporting dictates that we exhaust all easily available sources.

The "California Annual Farm Labor Report" for the year 1967, issued by the Department of Employment, shows the following figures for that year. The peak number of workers was 375,300. Of those, 91,000 were farmers and members of the farm family. Another 94,200 were hired year-around employees.

That leaves only 190,000 seasonal workers, of whom 135,000 were local workers. So the great myth of "migrancy" comes down to the fact that out of the total of 375,000 workers, only 54,800 were migrants, or just over 14 per cent. Furthermore, 32,000 of those were intra-state migrants, California residents who maintain homes in this state and travel for short periods to harvest crops.

The difference in the 688,000 and the 375,000 can be accounted for by the large number of casual workers who may "give farm work a try" for a day or two and cannot be counted as true farm workers.

The state says a professional farm worker is one who does nothing but farm work, and who is employed in farm work in each of the four quarters of the year.

Insurance figures show that there are close to 100,000 of these; that their median earnings in 1967 were $3,669.; and that about half of them worked for four different employers and had median earnings of $4,670.

One final note on this subject. The state's figures do not show earnings for work outside California, so there are 22,600 interstate workers whose annual earnings were higher than shown and which would increase all the earning statistics.

Mr. Krebs says collective bargaining rights "are denied by law to agricultural laborers." This is not correct. Farm workers have the right to bargain collectively. They are excluded from the National Labor Relations Act, and, as a result, collective bargaining is not mandatory.

What he did not say was that California agriculture initiated in this session of Congress a bill to give farm workers a collective bargaining law all of their own. It was introduced by California's Senator, George Murphy, and hearings currently are being held.

Mr. Krebs also could have checked his figures on the movement of table grapes with authoritative agencies, rather than simply copy the propaganda claims of the United Farm Workers organizers.

The Federal-State Markets News Service indicates that grape movements are ahead of last year. Prices are down, primarily because 1969 was a tremendous crop year. The harvest for grapes was considerably larger than the previous year and competing crops such as apples also had bumper harvests.

The prices of these fruits are determined by the supply and demand, with no government support programs; therefore, in years of large crops, like 1969, the prices are lower.

One always should be suspicious of statements starting with "It was learned" or "It has been reported." This generally means that it is something the reporter wants to say, but can find no supporting evidence for the statement.

1969 saw an event that flatly contradicts the quote from Assemblymen Unruh. A dozen California grape growers DID enter into negotiations with the United Farm Workers organizers. Among those negotiators was one grower whose headquarters is in San Francisco and, therefore, probably should be considered as one of Mr. Krebs' establishment people.

Those negotiations failed completely because of the union representatives' refusal to bargain in good faith. The negotiator for the growers, during a Los Angeles press conference after the collapse of the talks, said that on the very day the talks were broken off, these growers were prepared to sign contracts. That was the time, he said, when the union people reneged on all previous agreements and came forth with new demands, making further discussions useless.

Any discussion of errors of fact or ommission in the Krebs' article would not be complete without a comment on his statement that DiGiorgio Corporation is a "long-time symbol to farm workers of anti-unionism." He should have added that it was the DiGiorgio Corporation which was one of the first farming organizations in California to negotiate a contract with the United Farm Workers Organizing Committee; and, to borrow Mr. Krebs' term, it has been reported that the subsequent failure of the union to furnish competent workers, the obstreperousness and intractibility of the union officials, were among the major reasons the DiGiorgio people got out of the farming business.

Another place where Mr. Krebs was trapped by a careless quote was his statement that "seven per cent of the farms own 79 per cent of the land (and employ 75 per cent of the farm workers)."

The most recent census of agriculture compiled by the Bureau of Census, U.S. Department of Commerce, shows that seven per cent of the farms actually own 78 per cent of the land...some 29 million acres out of some 36 million devoted to agriculture in California.

However, nearly 23 million acres of this is devoted to pasture-timber land. Over half of all the farms involved are livestock or grain farms, neither of which employ large numbers of workers. As a matter of fact, all the farms in California of 1,000 acres or more employed only 48,000 workers, according to the census. Using our 375,000 peak figure, this would be about 13 per cent of the workers, not 75 per cent.

Mr. Krebs seems to be amazed over the fact that such industries as P.G. & E., Pacific Telephone, the various banks and the railroads all have an interest in California agriculture.

If he were more familiar with agriculture, he would not be quite so surprised. First, agriculture is the largest industry in the state. It uses about one third of the rail transportation, the majority of the highway transportation, and nearly one half the value of all waterborne exports from California ports. This would account for the interest of such firms as Southern Pacific, Santa Fe, Union Pacific, Western Pacific and any other railroad or steamship company.

California farmers use an average of more than 60,000 kilowatt hours a year, almost seven times the national average. This would explain the interest in agriculture on the part of P.G. & E. and Southern California Edison.

The most recent census of agriculture shows that California farmers own more than 100,000 automobiles, 125,000 trucks, 140 tractors, 20,000 other pieces of machinery. This, coupled with their expenditures of $100 million a year for petroleum products would account for the interest shown by manufacturers, distributors and dealers of these products.

There were more than 70,000 telephones on farms. Just one shipper of California fruits and vegetables, whose offices happen to be in San Francisco, said his annual telephone bill runs over $100,000. This would account for the telephone company's interest in agriculture.

The most recent report from USDA Economic Research Service shows that California farmers spent $222 million for repair and operation of capital items, $241.2 million for depreciation and other consumption of farm capital and $178.8 million in interest on farm mortgage debts all in one year.

This would account for the interest shown in agriculture by the Bank of America, Wells Fargo, Security Pacific, United California, the Federal Land Bank and the Intermediate Credit Bank, to name a few. About the only independent small banks left in the state are those which are located in agricultural areas, serving farmer customers, primarily, which seems to contradict Mr. Krebs again.

Mr. Krebs apparently is trying to make some sort of comparison between the decline in the number of farms and the size of some farms in California.

First, it should be pointed out that 12 other states in the United States outrank California in size of farms, including such citadels of family farming as Kansas, Nebraska and Oregon.

Second, it must be said that it is true that the number of farms in California is declining and that the remaining farms are getting larger. This is as much an economic fact as the disappearance of the corner grocery. It wasn't the chain store that drove the corner grocery out of business, it was the customers. They preferred to shop in the larger, more complete, store. It isn't the larger grower who is driving the small one out of business, it is the inflationary economy which makes it impossible for small growers to stay in business. High farm wages, taxes, mechanization, and other costs have made it uneconomic for the small grower to survive.

But this is not confined to California. Undersecretary of Agriculture, J. Phil Campbell, recently said that "In 1947 there were nearly 6 million farms in the country with roughly 26 million people living on them." By today there are "about 3 million farms with only 10 million people living on them," he added.

In California the comparable figures are 137,000 twenty years ago to about

65,000 today. A little arithmetic shows that the disappearance of small farmers in California is almost exactly at the same rate as the national figures.

It would appear that while Mr. Krebs may have used some accurate figures, he drew some completely invalid conclusions from those figures.

Sincerely,

D. W. Fillerup
Executive Vice President

OWF/bd

April 9, 1970

Editor
SAN FRANCISCO MAGAZINE
120 Green Street
San Francisco, Calif. 94111

Editor:

Anyone reading the past news releases and newsletters published by the California Council of Growers should be able to clearly see that this organization not only opposes protective legislation for farm workers but ridicules and criticizes those groups who support such measures.

It would be naive of us to think that such an organization which boasts of reflecting"the thoughts, ideas and attitudes of California agriculture" did not exercise a considerable degree of political muscle in the state and nation's capitol.

Rather than engage in a numbers game with the Council I might simply point out that farm labor statistics both in California and the United States are difficult for anyone to state with accuracy given the inexact methods by which various government agencies ascertain their figures.

The fact still remains, however, that many tens of thousands of California farm workers are ill-housed and ill-fed.

The current farm labor situation clearly shows that unless management is required by law to bargain collectively with their workers any group or organization representing the workers is powerless. For example, in some eight elections and card checks held, 89.4% of the nearly 2500 workers voted for union representation. Yet today the UFWOC has only three contracts with table grape growers. The rest claim their workers are happy and don't want a union.

Taking sharp exception to my remark about the DiGiorgio Corporation being a "long-time symbol to farm workers of anti-unionism," the Council of Growers betray an ignorance of California history. They should have read Dr. Ernesto Galarza's new book SPIDERS IN THE HOUSE AND WORKERS IN THE FIELD (Notre Dame Press), an account of the infamous 1947-50 Di Giorgio Arvin strike, before making such a remark.

A. V. Krebs Jr.
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PESTICIDES

WASHINGTON (UPI).—The Environmental Protection Agency was asked today to issue an emergency rule to prohibit experimentation on California farm workers who are being used as "guinea pigs" to test the effects of crop pesticides on humans.

A formal complaint was filed by the agribusiness accountability project, a Washington-based, public-interest research organization, who charged that the experiments by two companies were "reprehensible and unpardonable."

The organization charged the insecticides manufactured by the two firms were similar to "A form of nerve gas developed in Nazi Germany during World War II," which they said caused serious nervous disorders.

The two manufacturers were identified as the Niagara Chemical Co. of Middleport, N.Y., a subsidiary of the FMC Corp., which produces the pesticide Ethion, and the Chemagro Corp. of Kansas City, Mo., maker of the pesticide Guthion.

The organization said the two firms paid bonuses to farm workers last summer to pick crops in the fields seven days after the pesticide had been sprayed, even though the California Department of Agriculture requires a 30-day delay period.

According to a report by the organization, Niagara signed 19 workers at the Euclid Packing Co. near Linsay, Calif., and make experiments in late July and early August, 1970. Chemagro signed 30 workers at the Terra Bella orchard and the Whittemore orchard, both in Visalia, and made tests in late August and September. Blood samples were taken from the workers for which they were paid $3.50 for each test.

A report made for the organization by A. V. Krebs Jr., a field researcher, said the organic phosphate insecticides "short-circuit the nerve processes of not only insects and animals, but also human beings."

He said the two companies made the tests to prove a seven-day waiting period after spraying was sufficient.

Dr. Raymond E. Johnson of the Environmental Protection Agency's Pesticide Office said "there are some valid aspects to their (agribusiness accountability project) charges, some serious aspects."

Johnson said to his knowledge "there are no restrictions that I know of" to prevent such experimentation, except those of decency and morality.'

"It's a serious thing," he added. "It's extremely difficult to solve this problem, because regardless of the use of restrictions, we are still unable to regulate human behavior."

Johnson said his Office has "seen this problem shaping up" since last summer. "We are generally familiar with the problems of re-entry of people into fields recently treated with organic phosphate chemicals," particularly in southern California, Arizona, and in tobacco fields of North Carolina.

The organization which made the study said it was formed "to inquire into the accountability of large American corporations and agribusiness interests for the plight and powerlessness of migrant and seasonal farm workers." Their study was a joint effort by three groups, the Project on Corporate Responsibility, the Center for Community Change, and the Washington Research Project.

The investigation showed farm workers selected for the Niagara tests included a 38-year-old woman suffering from anemia, a 15-year-old girl who had suffered a skull fracture in 1969, a 44-year-old man with diabetes, and a 24-year-old man being treated for chronic headaches.

Blood tests by both companies showed significant drops in red blood cell levels among the workers, a test which "is conceded to be a specific measure of central nervous system damage," the organization said.

Jerry J. Berman and Jim Hightower, leaders of the projects' research program, charged the experiments represented "a case of corporate atrocity, committed for corporate profit."

Statement of the
AGRIBUSINESS ACCOUNTABILITY PROJECT
November 23, 1971
Subcommittee on Monopoly
Senate Select Committee on Small Business

CORPORATE SECRECY--AGRIBUSINESS

Mr. Chairman, the Agribusiness Accountability Project appreciates your invitation to present testimony today on a fundamental issue in our society---corporate secrecy.

My name is Philip C. Sorensen, and I appear today as the Chairman of the Advisory Committee of the Agribusiness Accountability Project. I am accompanied by Jim Hightower, Director of the Project, and by Martha McNeil Hamilton, who is Director of Government Research for the Project.

The Agribusiness Accountability Project is a public interest research organization that is sponsored by the Center for Community Change and by the Project on Corporate Responsibility. We are funded by the Field Foundation. For over a year now, we have been attempting to document the nature and extent of the role of big business in rural America. Because of corporate and governmental secrecy, this has not been an easy effort.

AN OVERVIEW OF AGRIBUSINESS IN RURAL AMERICA

One thing we do know is that agribusiness corporations generally have become the dominant force in rural America. Their concentration of agricultural markets and their power over rural people is increasing every day. It is our finding that American agriculture has moved from the fields to the cities---the critical decisions today are made in the board rooms in New York, Washington, Chicago, Atlanta, Kansas City, Houston, Los Angeles and other centers of big business.

There is no doubt that agriculture is big business. In 1970, Americans paid $114 billion for food. Fiber, tobacco and other agricultural products add billions more to make agriculture the biggest business of all---bigger than automobiles, bigger than defense hardware, bigger than electronics. Agriculture is the biggest contibutor to our balance of payments and a major source of employment. Three out of every ten jobs in private employment are related to agriculture.

But it is not the average rural American who is pocketing the billions generated by agriculture. Instead, it is agribusiness that enjoys the profits---a complex of huge seed and feed companies, chemical and fertilizer producers, farm machinery manufacturers, processors, canners and packagers, marketers and distributors who increasingly are moving into productions.

On the surface, agriculture appears to be a highly dispersed industry thatwould not lend itself to takeover. A majority (56.5 per cent) of all farms in the country are classified as "small." In fact, their impact is "small," in spite of their numbers. They accounted for only 7.8 per cent of farm sales, according to the 1964 Census of Agriculture.

On the other hand, a mere nine-tenths of one per cent of this country's farms accounted for 24.3 per cent of all farm sales. These giant producers averaged sales of $272,000 that year. The U.S. Department of Agriculture estimates that by 1969 these "largest" farms "accounted for at least one third of total sales by all farms." The Department projects that by 1980 these super farms will account for more than half of all farm marketing.

USDA attempts to minimize the importance of corporate agriculture by pointing out that corporations account for only one per cent of all farms and seven per cent of the land in farms. It says nothing about the real power agribusiness exerts in the market place and through contracts. Campbell's Soup, for example, owns no farm land, nor does it lease any, but through contracts with producers it effectively controls thousands of acres and hundreds of farmers. USDA does not bother to report that.

Thanksgiving is only two days away. This traditional celebration offers a dramatic insight into the corporate invasion of agriculture. Pilgrims and Indians provided their home-grown food for the first feast, but corporate America has pre-packaged the dinner this year. The Smithfield ham comes from IT&T. The turkey is a product of Greyhound Corporation. The lettuce comes from Dow Chemical Company, the potatoes are provided by the Boeing Company, and Tenneco, Incorporated brought the fresh fruits and vegetables. The apple sauce is made available by American Brands, while both Coca Cola and Royal Crown Cola have provided the fruit juices. For desert, there are strawberries by Purex.

But we should hesitate before bowing to give thanks to the corporate providers. This Subcommittee has pioneered in the investigation of corporate agriculture. You know from your 1968 hearings that it is an unproven myth that corporations inherently are more efficient than family agriculture. You know from your investigations in the field that corporations do not make good neighbors and that they change more than the pattern of farming when they move into an area. You know that there are serious questions about the quality of food that comes off the assembly line of corporate agriculture. And your hearings raised the fundamental and still unanswered questions about corporate monopolization of agricultural products which may lead to price fixing.

Mr. Chairman, we are not suggesting a return to the old homestead. It is obvious that the answer is not to give everybody forty acres and a mule. It should be just as obvious that the answer is not to continue stumbling along blindly, allowing corporate agribusiness to re-make rural America in its own peculiar image. It is one thing to buy Thanksgiving dinner from corporate America rather than a family farmer, but it is quite another thing to add on the staggering social and cultural costs that come with the shift in the make-up of agriculture.

--1.5 million farm workers averaged an income of $1,083 in 1970, while another million workers averaged $2,461 by doing some non-farm work too;
--some 12 million rural Americans exist in poverty, with millions more existing just on the edge;
--more than 2,000 farms a week fold---more than 3 million have folded since 1940;
--for every six farms that fold, a small-town businessman boards up his store; and
--whole rural communities and small towns are being abandoned.

The very character of our country is changing---farmers are being reduced from free enterprisers to corporate cogs, small towns are being abandoned for urban and suburban concentrations, and rural America is becoming a factory. Our national leadership has yet to question whether these radical changes are desirable. If we want more in rural America than corporate profitability, then we must have a national rural policy. But before we can develop any rural policy, we must strip away the myths and understand in detail the reality. That means asking agribusiness corporations to tell us more about themselves, and asking the federal government for enough information about agriculture to analyze the trends.

Mr. Chairman, the conventional argument for corporate disclosure has been the right of the investing public to know. As explained below, that right is not being protected adequately, and corporations should be asked to reveal more to investors about their agricultural involvements.

But corporate agriculture today affects far more than the investing public, and it is essential that we expand the traditional rationale for disclosure. Corporate agribusinesses are making private decisions that are having an enormous---maybe devastating---public impact. Putting aside the questions of whether we can control those decisions, at least the American public and their policy makers have a right to know about them.

The public has a double investment in agribusiness---both as consumers and as taxpayers. The federal government alone spends billions of tax dollars to subsidize agriculture. Invariably, these subsidies work primarily to the benefit of agribusinesses---subsidies including farm program payments, research at land-grant colleges, water from federal reclamation projects and loopholes in the federal tax structure.

But the fact is that the public cannot now know much at all about agribusiness corporations. Consider this basic question: Who are America's farmers? It is impossible to know even that.

In 1965, the Internal Revenue Service (IRS) reported that 3,265,382 farm income tax returns were filed. Only 17,578 of those were filed as corporations. By those figures, 99.5 per cent of the farms in this country are family or partnership endeavors, suggesting an agricultural system with strong competitive safeguards. But the IRS count includes only those corporations whose "principal business" is farming.

For giant conglomerates, the acquisition of a farming subsidiary can mean substantial capital gains, favorable depreciation rates on equipment and machinery, and tax losses written off against non-farm income---all amounting to major tax savings. But their principal line of business is not farming, and they need not bother to file a farm income tax return.

IRS does not include Tenneco in its farm count, even though this conglomerate controls close to 2 million acres of farm land. Tenneco's Kern County Land Company received a farm program payment this year of $1.3 million---the fifth largest made---and it received a $13.2 million credit on its income tax in 1969. Boeing Company has bought 100,000 acres for farming in eastern Oregon, but they will not appear as a farmer under IRS' rules. Boeing will use federally-subsidized water for its potato crop. This list of "farmers" can go on and on---Goodyear Tire and Rubber, Purex, Penn Central, Alico, Standard Oil of California, Prudential Insurance, Bank of America, etc.

But these conglomerates are not the only corporate farmers missed by IRS. Del Monte, Libby McNeil and Libby, Stokely-Van Camp, Green Giant, Ralston-Purina, Coca Cola and Pillsbury are vertically-integrated agribusinesses that have expanded directly into farming without being counted as farmers by IRS. Frequently, these processors and marketers turn to farming in order to secure cost savings in their purchase of farm products that they use in other business activities. In the process, they eliminate markets and drive down the prices for independent farmers struggling to stay in business. In spite of the huge acreage owned and the massive impact of their farming operations, they do not even have to file a farm income tax return.

Information at the Securities and Exchange Commission is not much better. Two documents filed there by public corporations provide the bulk of the information available on specific businesses. They are the Form 10-K, filed annually, and the Form S-1, filed at the time securities are registered. But these forms tell us little or nothing about the farming operations of the corporations. We can learn from these forms that a corporation is involved in farming, but not the extent of its investment in farming; we can learn that a corporation owns farm land, but not the location of that land. We have summarized the available information from the current 10-K and S-1 forms of Tenneco and Stokely-Van Camp and appended them to our testimony.

SEC requires information on lines of business within multi-faceted corporations only when the division amounts to 10 per cent or more of the corporation's total sales and revenues. With constantly increasing conglomerate-growth, this could allow major producers of specific commodities to omit farming from their reports.

Vertically integrated processors and distributors can avoid discussing their farming operations even if farming does account for more than 10 per cent of sales and revenues. Specifically exempted from the 10 per cent requirement are situations "where material amounts of products or services are transferred from one line of business to another..." These may be considered one line of business.

The conventional argument against disclosure has been competition---the right to protect business operations from the prying eyes of competitors. Yet the function of vertical integration and conglomerate growth has been to limit competition. Will processors, exporters and marketers bring to farming the concentration they have created in their own areas of business? According to the National Commission on Food Marketing in 1966,

> "There is a tendency for business in the several fields of the food industry to become more concentrated in the hands of a few large firms.... In neither food processing nor distribution do economies of operation resulting from large size necessitate high concentration in national markets."

We can reasonably expect vertical integration to extend this trend toward concentration into farming.

SEC disclosures through expansion of already existing mechanisms can provide the information with which other agencies of the federal government, and the public, can develop an understanding of who controls or is gaining control of agricultural production in America.

For instance, the need for disclosure about contractual arrangements between agribusiness corporations and producers must be met before any complete analysis of trends in food production can be attempted. The information available now on numbers of producers of commodities is inadequate for the purpose.

In poultry production, for example, 35,126 farms produced broilers in 1964, the latest year for which figures are available. On the surface, that appears to be a highly competitive situation. In fact, since 1964, 98 percent of broiler production has been under contracts, with Ralston Purina, Swift and Pillsbury being the dominant contractors.

In the case of broiler production, the trend toward agribusiness domination is clear. In other commodities, we are left to guess.

131,650 farmers were raising vegetables in 1964, again an apparently competitive situation. But agriculture secretary-designate Earl Butz, a former member of the board of Stokely-Van Camp, said last week that of 12,000 acres producing vegetable for processing by Stokely, 9,000 are under contract. No matter how many farmers are nominally suppliers of Stokely, in fact three-quarters of the land is under Stokely's control, and those farmers are not free to compete for better prices.

RECOMMENDATIONS

I. The Securities and Exchange Commission should expand its reporting requirements to provide a clearer picture of farming operations of vertically-integrated agribusiness corporations and conglomerates. Attached as appendix 2 is our suggestion for additional requirements.

II. All farms in USDA's "largest" category, those with annual sales of more than $100,000, should be required to submit an annual registration form to USDA, supplying the same type of information as the SEC would require on farming operations of publicly held corporations. Attached as appendix 3 is our suggestion for the requirements of this registration.

III. The Federal Trade Commission or the Justice Department should be required by Congress to issue an annual public report on vertical integration and the movement of conglomerates into farming, with the purpose of assessing the impact of increasing concentration in agriculture. Expanded disclosures such as those suggested above would help in compiling this report.

IV. We particularly endorse Ralph Nadar's November 9th recommendation before this Subcommittee that corporate income tax returns should be public information.

So far we have talked about the major issues involved in corporate secrecy, information about corporate activity that is not available for public inspection because no federal agency requires its disclosure.

For the industry analyst, the muckraker, or the interested stockholder, the roadblocks set in his way by those who oversee access to public information can be just as important and twice as frustrating.

Our task of analyzing what is going on in agriculture and who is behind what is going on in agriculture has been complicated in a variety of ways, ranging from petty harassment to perverted interpretations of the public's right to know.

We have several letters that reflect difficulties we have encountered in gathering allegedly "public" information. Let me summarize three cases, briefly.

--Ms. Kathryn Seddon is a corporate researcher for the Project. As part of her job, she spends hour after hour at SEC pouring over material that has been filed with the commission by agribusiness corporations. Because of the volume of material she has to deal with, it is frequently expedient to photocopy pages from annual reports or proxy statements rather than laboriously copying information by hand.

Ms. Seddon isn't lazy. She simply has a large volume of material to handle in a short time.

A LEASCO machine in the public reference room of the

SEC makes copies for 25 cents a page, a high price in comparison to other photocopying machines. Ms. Seddon wrote the commission, questioning the high prices and asking what benefits the SEC receives from LEASCO's operations. As it turns out, "The Commission's reward for entering into this contract is the public service it performs through encouraging the dissemination of public information..." According to their answer, a rather esoteric reward for a business arrangement. SEC does not lease space to the company for the machines or derive any monetary benefits from the operation.

--Ms. Sue DeMarco is actively working on a study of land-grant colleges for the project. As a result, she has needed to go to USDA occasionally to interview agriculture department staff. On a recent occasion, she was told that she could not park her car in a visitor's parking lot. ifyou are familiar with the location of USDA's main offices, you know there is no nearby available parking after 9 a.m.

A USDA official explained to Ms. DeMarco that "visitors" meant people on "official business that is of benefit to USDA." Apparently, he believed that an analysis of the activities of land-grant colleges would not be of benefit to USDA.

Ms. DeMarco has made a formal request for permission to park in the visitors lot on subsequent visits to USDA.

--Shortly after I went to work for the Project, USDA released its list of recipients of farm program payments of more than $5,000. Since there is a substantial history of legitimate congressional andpublic concern over how public funds are distributed and who farm program payments benefit, I was disappointed to learn how limited USDA's concept of "public" is.

USDA did not take issue with whether the names of recipients should be made public, but it did see to it that access to the information was limited. It made one copy available to the general public in a small room in a back hall of its Washington office; another copy available to 535 Senators and Representatives through the Senate Appropriations Subcommittee on Agriculture.

For those who found it inconvenient to spend hours at USDA squinting at the figures in six inch-thick volumes of computer printouts---or for those who don't live here, USDA had another alternative: for $150, an individual can have his own printouts; or for $75, an individual with a computer can have a magnetic tape to use to run off his own list.

In other words, the public's right to know is often limited by the public's ability to pay.

These examples, not critical in themselves, suggest that providing for wider disclosure of corporate information is not enough. There must be a change in the attitudes of the custodians of public information, a change that reflects the fact that government employees are at the service of all of us.

APPENDIX 1

Two documents filed with the Securities Exchange Commission provide most of the information used in assessing the nature of a corporation's business, particulary its agricultural activities. These are Form 10-K -- filed annually under requirements of the Securities Exchange Act of 1934 -- and Form S-1 --filed at the time securities are registered under the provisions of the Securities Act of 1933. Requirements for completing these forms are attached.

We have chosen two examples to indicate the type of information regarding agriculture which is available from these forms. The amount of detail in reporting varies considerably from corporation to corporation. Some descriptions of a business's agricultural activities are far more comprehensive than others. Our examples are neither the best nor the worst.

TENNECO CORPORATION
Form 10-K for Fiscal Year ended December 31, 1970.
Filed with Securities Exchange Commission on March 31, 1970.

Item 1- Business.

The description of business includes three categories directly related to agriculture. They are "Packaging", "Land Use and Development", and "Manufacturing". Introductory paragraphs reveal the number of employees engaged in all lines of business in a lump sum. The following types of information are given for each category:

Packaging--a general description of the type of containers produced and their uses. For example..."cartons are used principally in the packaging of soap and detergents, food products and beverages and a wide range of consumer goods. Molded pulp products are supplied for packaging of apples, other fruits and eggs, for use as transfer plates in the baking industry and for use as prepackaging trays for meats, fruits, and vegetables used in self service markets".

--a percentage breakdown of sales according to type of container(for instance, paperboard).

--number of plants according to type of container produced and the number of plant locations

--aggregate amount of shipments for each category of container except for plastic products

--the source of raw materials--described as "independent logging contractors", the operation of reclaimed paper stock collecting plants, and "other sources".

--acres of land used in the operation are described as follows: "Packaging owns, leases, or has cutting rights over approximately 206,000 acres of Michigan forest land and over approximately 285,000 acres of timberland in Alabama, Mississippi, and Tennessee".

--competition within the industry is described as "intense".

Land Use and Development--

--a chart lists total number of acres owned and total number of acres leased in each of two states

--total number of acres devoted to irrigated farm lands (no locations listed)

--total number of acres farmed by Tenneco West and number farmed by independent farmers under lease

--a statement that "Most of these irrigated farm lands have been upgraded from grazing lands".

--a vague statement that Tenneco West has "substantial water rights on the Kern River in California and an extensive canal system which serves Tenneco West's lands and certain lands of others".

--a statement that Tenneco is also engaged in development of commercial land in Bakersfield, California.

--the name of the subsidiary which acts as "sales agent" for growers and shippers in four named states

Manufacturing--a listing of divisions including J.I. Case. Under J.I. Case,

--a list of the types of agricultural machines and "other items" produced.

--per cent of J.I. Case's total sales accounted for by agricultural equipment

--the statement that "markets are highly competitive"

--the total number of independent dealers and retail outlets in the United States and Canada which market J.I. Case products

--the number of domestic manufacturing plants and a list of fives states--but not cities--in which they are located, but no information about how many are in each state.

--names of foreign countries in which subsidiary plants are located.

J.I. Case Credit Corporation, an unconsolidated subsidiary of J. I. Case, is simply described as financing "purchases and lease of Case products by dealers and their customers."

The share of Tenneco's business during the last four years is reported in dollar amounts for "Packaging", "Agriculture, Land Development", and J.I. Case according to "operating and non-operating revenue" and "income" before interest, taxes and extraordinary expenses. Net sales for the years 1966-1970 are reported according to broad categories:

Machinery, equipment and shipbuilding
Packaging
Land Use

Item 2: Summary of Operations.

In the notes to the Financial Statement, Tenneco lists recent mergers and acquisitions and describes briefly the terms(cash and stock) of the transaction.

Item 3: Properties.
(The guidelines ask for location, general character, whether or not leased, etc.)

"The Company believes that the plants and equipment of its subsidiaries, substantially all of which are fully utilized in their operations, are in general well maintained and in good operating condition."

Item 4: Parents and Subsidiaries.

Lists of names of subsidiaries include subsidiaries of subsidiaries, place of incorporation and percentage of voting securities owned by parent company. At the end of the list appears the statement that "certain other subsidiaries which Tenneco West, Inc., and Tenneco International Inc., own, either directly or indirectly through totally held subsidiaries, ...names...are omitted since in the aggregate as a single subsidiary they do not constitute a significant subsidiary."

Item 5: Pending Legal Proceedings.

Tenneco provides a brief description of pending legislation identifying the court and the prinicpal parties involved. The date of filing is not included.

Items VI-IX are omitted as they do not bear directly on agricultural activities.

Item 10: Financial Statements and Exhibits Filed.

Schedule V of the financial statement is entitled "Plant and Property". Tenneco attaches a dollar figure to the property used in the three divisions:--packaging; machinery, equipment and shipbuilding; and land use and other.

A separate financial statement is filed for J.I. Case Credit Corporation.

At the end of the report, Tenneco lists other exhibits on file with the Securities Exchange Commission. The list includes the type of exhibit, date filed, and registration number.

TENNECO CORPORATION
S-1 Statement, Filed October 21, 1970.
Amendment Filed November 23, 1970.

The S-1 statement occasionally provides information which supplements that available from the 10-K reports. The most recent Tenneco statement yields the following:

Report of use to which proceeds of the sale of stock will be put--a specified dollar amount is to be used to pay in full "short term notes". The "balance" will be added to general funds and "used for the expansion of the business and its subsidiaries. The proceeds of such short term notes were used ... by the Company for the expansion of its operations, and by Tenneco Corporation for the expansion of the businesses of its subsidiaries".

Description of business--the description of the three categories of agricultural-related business is almost identical to that which appears in the 10-K form. Additional information is reported regarding "packaging" activities:

the name of a subsidiary and the location of its plant and its output
the number of forested acres owned, leased, or on which the subsidiary has cutting rights and the names of the three states in which the land is located.

STOKELY-VAN CAMP, Inc.
10-K Form for Fiscal Year ended May 31, 1971.
Filed, August 30, 1971.

Item 1: Business.

--described as "processing foods for human consumption"

--principal products listed are canned and frozen vegetables and fruits, edible oils and non-carbonated drinks

--principal markets are described as "food wholesalers" and "other processors"

--the industry as a whole is described as "highly competitive without a dominant leader". Stokely considers itself a "larger processor of seasonal and non-seasonal vegetables and fruits".

--sources of raw materials. Vegetable and fruits are grown on contract. Dry beans and oils are purchased on the "open market".

Item 2. Summary of Operations.

--Dollar figures for sales, cost of products, taxes, etc., are reported for the last five years. There is no break down according to product.

Item 3. Properties.

--Stokely provides a summary description of types of plants "owned and operated"...throughout the United States and Canada". The location of an edible oil refinery is given.

Item 4. Parents and Subsidiaries.

--The names of subsidiaries, place of incorporation, and the percent of voting securities owned by Stokely are listed. "All significant subsidiaries are included in the consolidated statements."

Item 5. Pending Legal Proceedings.

--Stokely briefly describes a suit pending against it and names the party to the suit and the date on which it was filed.

Items 6-9 omitted.

Item 10. Financial Statements and Exhibits Filed.

--Schedule V-"Property, plant, and equipment"

Aggregate figures for "additions at cost" and "retirements or sales" appear for 1971 and 1970. Details regarding these changes in property are not provided because "neither the total additions nor total deductions for 1970 and 1971 were more than 10% of the balances at the end of the respective years."

APPENDIX II

PROPOSED SEC DISCLOSURE REQUIREMENTS FOR PUBLIC CORPORATIONS IN FARMING:

I. Farm Land Owned

- A. Acreage
  - 1. Locations

    --by property taxing jurisdiction
    --addresses
  - 2. When acquired
  - 3. Acquisition cost of land purchased during reporting year
- B. Crops Produced
  - 1. By conventional measure (bushels, car lots, pounds, etc.)
  - 2. Subsidies received

II. Farm Land Leased

- A. Acreage
  - 1. Locations

    --by property taxing jurisdiction
    --addresses
  - 2. When acquired
  - 3. Acquisition cost of land purchased during reporting year
- B. Crops Produced
  - 1. By conventional measure (bushels, car lots, pounds, etc.)
  - 2. Subsidies received

III. **Suppliers of Crops**

- A. Under contract
  - 1. By crop

    --number of contractors
    --volume
- B. Other suppliers
  - 1. Number
  - 2. Volume

IV. **Employees**

- A. By Division (annually)
  - 1. Number
  - 2. Volume
- B. Agribusiness employees (reported quarterly)
  - 1. By activity (farming, processing, marketing, packing, etc.)
  - 2. Number
  - 3. Volume

APPENDIX III
ANNUAL AGRIBUSINESS REGISTRATION

I. Producers*

- A. Acreage owned
  - 1. Locations
    - a. by taxing jurisdictions
    - b. addresses
  - 2. When acquired
  - 3. Acquisition cost
  - 4. Food and fiber produced
    - a. by convensional measure
    - b. subsidies received
- B. Land leased
  - 1. Locations
    - a. by taxing jurisdictions
    - b. addresses
  - 2. When acquired
  - 3. Acquisition cost
  - 4. Food and fiber produced
    - a. by convensional measure
    - b. subsidies received
- C. Employees
  - 1. Number
  - 2. Wage

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*Producers with agricultural sales of $100,000 or more in the reporting year

(2)

*Producers: name, type of ownership

a) sole proprietorship (names of owners)

b) partnership (names of owners)

c) corporation (name of corporation and names of all shareholders owning 10% or more of corporation stock)

D. Itemization of other agricultural businesses and/or activities (packing, shipping, in-put companies, processing, etc.)

1. For those activities accounting for 5% or more of the cost of production

2. Itemize sales figures for any activity producing $50,000 or more in sales

LA Times Nov. 8, 1971

Break Up Farm Giants, Urges Former Official

Copyrighted material deleted.

Mr. **Krebs**. Corporate disclosure, however, is only one step toward challenging big business's invasion of agriculture. What is needed most urgently today is some serious thought and action on the question of land reform in the United States.

As a model aimed at making corporate America more responsive to the common good, economist John Kenneth Galbraith has suggested that the railroads of the country be nationalized. The Agribusiness Accountability Project endorses that suggestion, for we see in such an action a chance to demonstrate an effective land reform program. The project calls for Federal repossession of the massive land holdings awarded the railroads years ago, and we call for a redistribution of those lands into family farming parcels that would be large enough to be economically efficient and commercially viable.

Nationalizing a railroad like the Southern Pacific Co., for example, would mean that the Federal Government would repossess and redistribute more than 3.8 million acres of land that originally belonged to the people of Nevada, Utah, and California. Certainly, such a plan would bring about a large measure of the true land reform needed in America.

I want to emphasize that land reform is only one part of it, because you can distribute the land to any number of farmers and still have the policies of the U.S. Department of Agriculture, the limited way of getting farm credit, the denial of farm workers' legislative rights that are granted to all other workers, and it would still be agriculture in the name of big business. It is an overall policy that is needed, not just land reform.

We enthusiastically endorse the aims and goals of the National Coalition for Land Reform. We also at the time want to endorse the Reclamation Land Authority Act that was recently introduced by Senator Fred Harris, and Senator Nelson's Family Farm Act of 1972.

But if true land reform flows from these kinds of suggestions it will be necessary to shore up the government antitrust enforcement capabilities. At present, the capabilities are inadequate, as demonstrated recently by the decision of the Federal Communications Commission to drop its proposed study of the giant A.T. & T.

Another indicator of our government's enforcement potential is the fact that the entire budget of the Justice Department Antitrust Division is only one-twentieth of the advertising budget of Proctor & Gamble.

If the antitrust and monopoly laws of this country were to be enforced, agribusiness would feel an immediate impact, for market control has become the name of the game in agriculture. Put the pro in produce, Tenneco reminds us.

Large vertically integrated corporations are the dominant and increasingly overwhelming force in American agriculture. These are giant processors, feed companies, and others up the food line, either growing their own crops on their own land or making one-sided contracts with independent farmers, forcing the farmers to serve the corporate interest rather than his own. These also are the corporations that are moving off to Mexico.

A giant supplement from a December 18, 1971, issue of "*The Packer*", gives almost a complete roster which we would like to offer into the record as to just who these corporations are that are farming now in Mexico and taking advantage of that country's cheap labor and cheap land prices.

Senator STEVENSON. I am not certain it can be printed because of the format of the materials. Under any circumstances, it will be retained in the official files of the subcommittee.

Mr. KREBS. Their motive is profit, period. They have demonstrated a willingness and an ability to exercise their economic power in about any way that will increase that profit, even if that may not be in the best interest of rural America.

Alfred W. Eames, Jr., the chief executive officer of the Del Monte Corp., expressed this single-mindedness of the agribusiness in this statement:

> Del Monte's corporate game plan calls for continuing development based on our established strength in producing, distributing and marketing food. Within that framework, we will continue to explore specific opportunities offering potential for above average earnings growth.

Mr. Chairman, Mr. Ballis has prepared a chart on the interconnecting directorates of the Del Monte Corp. for the Agribusiness Accountability Project. As you will see, it is an enormous thing and I won't try to take the time now by explaining it, but simply that the members of the Del Monte board are across the top and their corporate and personnel interconnections are listed below and it reads like a who's who of American business.

Senator STEVENSON. Can we have a copy of that for the record, too?

Mr. KREBS. Yes.

Senator STEVENSON. It will be marked "Exhibit 2." It is clear, however, that so large is the exhibit that I doubt it can be printed. We will, however, retain it in the permanent files of the subcommittee.

Mr. KREBS. Mr. Chairman, our proposals here today may seem a bit radical to some, but they are tame, indeed, when measured against the truly radical, often violent changes that have been wrought in rural America by agribusiness interests. Certainly, our proposals are modest when you consider the enormity of the problem with which we are faced. How to make giant corporations, particularly the dozens that are invading agriculture, more accountable to the public that they should serve.

In California, the problem is particularly acute because of the enormous power which agribusiness has bought over the past 125 years. It overshadows all of California's public and private institutions, its businesses, its politics, its educational system, and its social life.

As Anne and Hal Draper have written in their excellent pamphlet, "The Dirt on California: Agribusiness and the University," and I quote:

> It would be an exaggeration to say that agribusiness is the master of social order in California, but it would be an exaggeration only because agribusiness shades into the financial power structure so neatly, and it is that combination which is the master.

Senator STEVENSON. Our time is escaping us and I want to thank you all for your provocative statements this morning and for raising the question which you have. All of them go to the heart of our inquiry. Thank you very much.

I would emphasize, too, for the record, that we do expect to hear from all sides on these questions.

I would also note that in my own judgment, California is very fortunate to be represented as it is now in the U.S. Senate. Both Senators have been extremely helpful to this subcommittee, including assistance with the arrangements for this hearing.

Before we proceed to our next witness, I am going to recess the hearing for 3 minutes.

(At this time a short recess was taken.)

Senator STEVENSON. The hearing will be in order.

The subcommittee's next witness is Dr. Paul Taylor, professor emeritus of the Economics Department at the University of California at Berkeley. I think it is fair to say that Dr. Taylor is a foremost expert and authority on the issues raised in these hearings in the State of California, and certainly has been over the years one of the Nation's most thoughtful and perspective students of rural America. He can provide us with a vision of the past, and perhaps of the future, too.

Thank you, Dr. Taylor, for joining us this morning.

STATEMENT OF DR. PAUL TAYLOR, PROFESSOR EMERITUS OF ECONOMICS, UNIVERSITY OF CALIFORNIA, BERKELEY

Dr. TAYLOR. Thank you, Senator, for your very kind introduction.

My name is Paul S. Taylor, and I reside in Berkeley, Calif. This statement represents my individual views.

I first became familiar with migrant labor before World War I in the Middle Western Wheat Belt. Since 1927 I have studied agricultural migrants in many parts of the United States. To amplify treatment of historical aspects of the problem, I attach four of my previously unprinted studies on migratory workers, a recent New York Times editorial, and two current Chicago Sun-Times news stories on agri-business, with a request that they accompany this statement in the printed record.

Senator STEVENSON. They will be entered in the record together with your entire written statement and any exhibits, at the close of your remarks.

Dr. TAYLOR. The Chairman has invited me to view from an historical perspective current developments in California agriculture, including the ownership, use, and distribution of land, together with their impact on farmworkers, farmers, and others whose lives are affected by it, and the extent to which our government policies and programs are meeting and serving the needs of all the people of rural America.

My response will relate to the 1970 headlines on the volumes of 1970 hearings, namely, "Migrant and seasonal farmworkers powerlessness * * * who is responsible?" Broadly speaking, it is the decisions of others than farmworkers, decisions in the marketplace and in the halls of government, that create the conditions into which this subcommittee is inquiring. Generally speaking, migrant and seasonal farmworkers simply accept and adjust to conditions created by others. With residence unstable and income low, they tend to have small influence within their communities on the wages to be paid, the housing to be furnished, the legislative protections they are to receive, et cetera. In those respects owners of agricultural land are far more influential. The decline in access of people to land, a consequence of unabated farm enlargement and concentration of landownership, is an important element in shaping the problems not only of farmworkers, but also of working farmers, town businessmen, and, indeed, all elements of rural society.

In California concentrated landownership appeared early, obstructing the rise of small farms owned by those who worked them. The California Constitution Revision Commission recently summarized in a staff report as follows:

I quote:

> The Forty-Niner era produced several diverse breeds of persons. One of these was the claim-jumper, who usually employed force to attain his ends. Another, the land pirate, often resorted to more subtle means. Fraudulent Mexican land grants were commonly employed to separate the gullible newcomer from his life's savings. By 1879 California abounded in depression debtors and the forced sale of their properties resulted in increasing hardship and concentration of land ownership in the hands of a few wealthy individuals and large corporation. * * * The Constitutional Debates of 1879 were rife with denunciations of the twin curses of cheap imported labor and land monopoly. Labor-saving machinery was driving men off the land and into the cities. Huge corporate interests were said to be hovering nearby, ready to gobble up the property titles of pauperized landowners.

These means of acquiring lands produced the condition described by Ambassador James Bryce in the early 1890's as the farmers' difficulty in acquiring small freeholds and the reliance of California's enormous farms upon a mass of unsettled labour, thrown without work into the towns at certain times of the year. The temper of those in charge of the land in early California was never more vividly expressed than by the California Farmer in 1854, foreseeing a future of great crops of cotton, sugar, et cetera.

I quote:

> Americans will not become the working men of our tule land, in our rice fields and our cotton plantations and other departments of the same kind of labor. At the South, this is the work of the slave, but slavery cannot exist here. * * * Then where shall the laborers be found? The Chinese! And everything tends to this—those great walls of China are to be broken down and that population, educated, schooled, and drilled in the cultivation of those products, are to be to California what the African has been to the South. This is the decree of the Almighty, and man cannot stop it.

Without water, land in California is valuable mainly for pasturage. A Federal Commission, sent to California to explore the feasibility of irrigating lands in the Central Valley, reported in 1874 that irrigation was feasible, that government subsidies would be necessary, and that the coming of water would increase land values many fold. The incentive to capture these subsidies and windfall profits from anticipated public investment was electric. In 1877, only 3 years after the Federal report, the Visalia Delta described it:

> No one would believe that shrewd, calculating businessmen would invest their money on the strength of land rising in value while unimproved, for even the farmer himself has to abandon it who endeavors to add to its value without water. At the same time, purchasers are not lacking who would add it to their already extensive dry domain and the people * * * will find themselves confronted by an array of force and talent to secure to capital the ownership of the water as well as of the land, and the people will at last have it to pay for. * * *

This 95-year-old forecast explains why Congress, to protect the public interest, included in the 1902 reclamation law the well-known acreage limitation and residency requirements. These were designed to assure that prior monopoly of arid lands shall not, upon the coming of water, deny access to the many who would move up the agricultural ladder and themselves farm the irrigated soil as means of livelihood and homemaking. Reclamation law states, and I quote:

> No right to the use of water for land in private ownership shall be sold for a tract exceeding 160 acres to any one landowner, and no such sales shall be made to any landowner unless he be an actual bona fide resident upon such land, or occupant thereof residing in the neighborhood. * * *

The landless farmworker seeking access to land, in whose interest this law seeks to open opportunity, has been unable to protect his own interest. Passing a law does not assure enforcement. This law has been under tenacious attack within each branch of government. A unanimous U.S. Supreme Court decision reversed a California Supreme Court opinion holding acreage limitation unconstitutional. In 1959-60 Congress refused, after 4 days of extended Senate debate and 2 days in the House, to exempt a California water project jointly using Federal reservoir, pumps, and canals, from acreage limitation. The administrative branch shortly nullified congressional debate and action by giving exemption, anyway. On the west side of Central Valley Federal construction proceeds to serve with water 500,000 acres or more, around two-thirds of which are ineligible to receive it; a single owner holds over 100,000 acres within the project.

In Imperial Valley 233,000 acres exceed the legal limit. The Departments of Interior and Justice refused last spring to appeal a Federal district court decision that acreage limitation does not apply to Imperial Valley, although Justice had argued stoutly in court that it does. Justice declined to argue that residency—in the same sentence of the law as acreage limitation—applies. Last November in a suit brought by landless persons a Federal district judge held that residency does apply.

In this decision, barely 7 weeks ago, the Federal judge cited administrative laxity and pointed to the powerlessness of the landless. The opinion holds that:

> From its very inception reclamation policy has been to make benefits therefrom available to the largest number of people. * * * The idea was to create a class of self-reliant family farmers * * * to provide homes for people. Homes are possibly only where speculation and monopolization are not possible. * * * The fact that residency has not been required by the Department of the Interior for over 55 years cannot influence the outcome * * * it is well settled that administrative practice cannot thwart the plain purpose of a valid law * * * lapse of time serves to dramatize the unavailability of relief in the past and points toward the need for increased access to the court in the future.

Existing law aside, frequently it is argued that family farming is but a nostalgic relic of the past, and that its displacement by industrialized agriculture is inevitable and proper, especially in these days of heavy machinery. The claim of cutting unit costs of some crops has limited validity and can be easily exaggerated. As conditions approach monopoly, it is questionable how much of cost reduction is shared with consumers, and it overlooks the working farmer's self-interest in maximum production per acre. Smaller farmers generally deny the claim of superior efficiency and they support acreage limitation. Use of large-scale machinery is not dependent upon large-scale ownership of land. Contract operation of machines by smaller farmers is common practice in California today, as here and elsewhere for a century. Superior operating efficiency is insufficient explanation of the swallowing up of family farms by larger farms and conglomerate corporations. Other factors are tax loopholes to be taken advantage of by purchases of farmland, local tax practices that reflect suburban sprawl in higher assessments of adjacent land used for farming, and superior reserves of funds seeking investment hedges against inflation. A Presidential task force in 1967 demanded that the Interior Department "enforce the 160-acre limitation", and called for a halt to western reclamation, saying that without it "the South could have stronger agricultural and rural economies, with fewer poverty-stricken people."

A question far more fundamental than which scale of farming has the edge over the other in operating costs is to compare their total social efficiency from a public viewpoint. The impact of uncontrolled, even assisted, displacement of smaller farmers by larger, even giant farmers, is far more pervasive than simply obstructing farmworkers' and wouldbe farmers' access to land. The impact is felt throughout the business, social, cultural, and political life of the entire rural community. A classic 1946 study comparing two contrasting communities of generally equivalent numbers and economic base is valid today. It compared Arvin, resting upon industrialized, large-scale agricultural production, with Dinuba, resting upon family-size farming. Dinuba was found to be a community homogeneous in every sense. Arvin lacked balance and homogeniety. The smaller farm community supported nearly twice the number of separate business establishments, about 20 percent more people per dollar volume of agricultural production, a volume of trade nearly two-thirds greater, a better standard of living with expenditures for household supplies and building equipment more than three times greater. Less than one-third of the breadwinners in the smaller farm community were agricultural wage workers, compared with nearly two-thirds in the large-scale farm community. Physical facilities for community living, such as paved streets, sewage and garbage disposal, were far greater in Dinuba; schools, parks, and recreation facilities were more plentiful; local participation in local government was greater; organizations for civic improvement, social recreation, and religious observance were twice as numerous. Dinuba supported two local newspapers, Arvin but one.

In conclusion, not only the laxly administered national reclamation law, but programs for direct financial assistance to farmers tend to favor large-scale farming. In the year immediately preceding congressional enactment of a $55,000 ceiling on agriculture subsidy payments, a single California farming corporation received over $4 million. It may be well to observe whether the Department of Agriculture will be as lax in its interpretation of the $55,000 ceiling as the Department of the Interior has been in interpreting residency law. Government assistance to qualified landless persons to purchase farm homes, a program begun during the Great Depression, has made only limited progress toward improving access to land. Migrant and seasonal farmworkers, notably exposed to regularly recurring unemployment, are left uncovered by Government programs of unemployment insurance. These are examples of imbalance in Government programs which, in the interest of the whole rural community, it would be desirable to correct. With respect to reclamation, I recommend specifically that Congress adopt S. 2863 sponsored by four Senators, and its equivalent in the House, H.R. 5236, sponsored by seven Congressmen.

These bills aim to enforce reclamation law by authorizing the Government itself to purchase "excess" lands at the prewater price at which existing law obliges their owners to dispose of them. With these lands in Government possession, effective planning of the environment becomes possible through attachment of land-use regulations; agricultural greenbelts, and access of people to land can be preserved, and revenues can be devoted to the support of education in the land-grant tradition. Social efficiency in the interest of the community as a whole is the proper guide to policy.

A final word perhaps should be said in partial explanation of the powerlessness of farmworkers to secure the effective enforcement of acreage limitation law that would improve their access to land in the western reclamation belt. The issue is discussed usually in terms of farming efficiency, but this obscures the powerful incentive to thwart enforcement in order to obtain speculative windfall profits that acreage limitation law says shall not be monopolized. This incentive naturally is strongest when development of cities is expected on lands receiving subsidized water under reclamation law.

An example might be the 88,000-acre Irvine Ranch in southern California, which receives Colorado River water developed under the Boulder Canyon Act which authorized the building of Hoover Dam by the Bureau of Reclamation. Apparently, the Irvine Co. intends to develop a City of Irvine on 50,000 acres of its property, "three times the size of Manhattan Island," and anticipates that it will be inhabited by half a million people. This, of course, is but one conspicuous example. It may serve, however, to dramatize the fact that in many western reclamation areas urban speculation hopes, as well as a search for agricultural gains, explain the strong opposition that stands in the way of access of farmworkers and would-be farmers to land developed in its supply of water by the U.S. Bureau of Reclamation under reclamation law.

I will tender these documents, which I will not read, but which support what I have said.

Senator STEVENSON. Thank you, Dr. Taylor. The information you submit will be included in the hearing record at the close of your remarks.

Would you remain just for a question or two?

Dr. TAYLOR. Certainly.

Senator STEVENSON. If the Land Reclamation Act had been enforced over the years, including the 160-acre limitation, would this in itself have been enough to have changed the complexion of land ownership in rural California now?

Dr. Taylor. It would have been a crucial factor. I think other programs could have helped, such as an expanded Farm Security Program, which began as a resettlement program in farm security. I think the Government could assist the smaller farmers in ways that could be very effective and very widely dispersed in their impact and balance the imbalance in a lot of its programs, such as those I cited a few moments ago.

Senator Stevenson. What will happen in rural California if the policies and the activities of the Government aren't changed? Will the trend toward ever-larger concentrations of land continue or will, in your opinion, new natural forces enter the picture to arrest that trend?

For example, if it is true that the family farmer is a more efficient producer than agribusiness giants, which, as you point out, are also socially inefficient, won't the giants in the ordinary course of agribusiness developments, begin to depart the rural American scene? Isn't this happening already in some cases?

Dr. Taylor. If I understand your question, you are asking me if enforcement of the reclamation law especially is approved by the bill which I have recommended and which is in the Senate and the House, nevertheless——

Senator Stevenson. What I am asking you is, if nothing happens, if the bill isn't passed and the attitudes of governmental agencies aren't changed——

Dr. Taylor. It will accelerate the disappearance of the rural community as we have known it, and the crowding of many more people into the cities. Some people can go into the cities to their own personal advantage, and there is no objection to that as far as I can see, but I think there is great objection to the sweeping of people off the land into the cities which are not equipped to take care of them and to provide employment and the other services to which people are entitled in our society.

Senator Stevenson. And though the giant corporation isn't as efficient a producer as the small farmer, at least in many cases, it will stay with it and, for ulterior reasons, such as the appreciation in land values, it is not going to start getting out of agriculture because of its unprofitability?

Dr. Taylor. If reclamation law is enforced, and especially if this new law is enacted which will improve its enforcement, then I think the opportunity for agribusiness to sweep people off the land will disappear; then agribusiness won't be able to do it.

Senator Stevenson. Just from enforcement in California?

Dr. Taylor. No; in the 17 western States.

Senator Stevenson. In the 17 western States?

Dr. Taylor. Yes.

Senator Stevenson. Water is that important?

Dr. Taylor. Yes. The rest of the country is financing our reclamation out here, and I think it has a responsibility and a right to say what kind of rural society we should have in the West.

Senator Stevenson. We perceive the same trends in the other parts of the country, in which rural America isn't so dependent on irrigation programs, and where the 160-acre limitation isn't an issue.

Dr. TAYLOR. That is true. You are speaking of the Middle West, for example?

Senator STEVENSON. Yes, where I come from.

Dr. TAYLOR. I come from the Middle West, too. I think it is a question for the Government to examine as to whether or not we wish to allow that trend to proceed without curbs and controls in the public interest. I think it is open to serious question whether the Government ought not to revise some of its policies so as to retard its trend there.

Senator STEVENSON. What would be the immediate effect of enforcement of the 160-acre limitation in those 17 States? Would those in violation begin selling off their land and, if so, what would be the effect on the prices of the land?

Dr. TAYLOR. On the prices of the land? The proper sale price is already established in existing law, the prewater price. That is not to say that they would not be allowed an element of price for the improvements that they have made upon the land, to make it irrigable and so on. But the price of the land itself, as is set in the existing law, is the prewater, preproject price. I think that is fair, because the increment in value, changing land from pasture to citrus fruit or cotton or whatever, is owing to the coming of water, which is publicly subsidized, and windfall profits, as the law states, are not to be monopolized by the few.

Senator STEVENSON. Is one of the consequences of publicly subsidized water over-production on the land, and, consequently, lower prices which, in turn penalize the small farmer more than the large.

Dr. TAYLOR. Yes. There is a hazard of that, and I quoted from the President's task force on rural poverty in 1967 which said that the expansion or reclamation in the West was increasing the distress of the poverty-stricken of other parts of the country. We now see that farmers in our own State of California on the east side of the valley, which has been irrigated and cultivated for a long time, are complaining that they are going to be facing a depressed market in certain crops which are being put in on the west side. So that problem exists both within and outside of the reclamation belt.

Senator STEVENSON. Would you also say that publicly subsidized irrigation projects encourage overconsumption of limited resources of water?

Dr. TAYLOR. That is a question which needs serious investigation. Agriculture is a very great consumer of water. Urban and industrial development consume much less. I think it is a subject which should have serious study in order to shape our reclamation policy in the years ahead, comparing whether that water should go, to agriculture or to urban development, and in what proportions, and where.

Senator STEVENSON. Do you have any general opinions about the desirability of policies which might tend to redistribute population growth patterns in the country, shifting growth away from the largest metropolitan areas into the intermediate sized metropolitan areas and into rural communities?

Dr. TAYLOR. I think that would be highly desirable. We have an imbalance. It doesn't require very acute observation to see that our cities are filled with more people than we can well take care of there.

We have been willing to sweep people off the land with machinery or with whatever has been the reason, and let it go at that. I think we are paying the price, and it is a price visible, to anyone who looks at our society at all.

Senator STEVENSON. The trend is such now that virtually all of the population growth of the country is in largest metropolitan areas, particularly in the suburban area.

Dr. TAYLOR. I think its desirability is highly questionable.

Senator STEVENSON. How do you reverse that trend?

Dr. TAYLOR. There are various ways of doing it. One in this State and in the reclamation belt is by enforcing the reclamation law. The Arvin and Dinuba study referred to shows what can be done. You get a much better balanced community with a much better quality of living. You can distribute industry to some extent into these smaller communities. If we want to do it, there are a lot of ways that could be found.

Senator STEVENSON. We would welcome at all times suggestions as to new and additional ways in which it could be done, Dr. Taylor, if you have any further thoughts along those lines.

Dr. TAYLOR. If you wish, I will prepare a short statement that will have some suggestions in that direction.

(The supplemental statement of Paul S. Taylor, follows:)

Supplemental statement by Paul S. Taylor

A number of means are available to preserve the vigor and health of rural communities. The following suggestions are offered:

1. In the 17 western states enforce the acreage limitation and residency provisions of federal reclamation law. Steps in this direction include:
    a. Instill in the bureaucracies of the Interior and Justice Departments a greater appreciation of the importance of securing observance and enforcement of the acreage limitation and residency requirements of reclamation law.
    b. Facilitate access to the courts by landless persons and smaller farmers seeking to preserve their interests under reclamation law when government bureaucracy fails to do this, by making legal services more readily available to them through channels such as the Office of Economic Opportunity.
    c. Creation by Congress of a Reclamation Lands Authority, as proposed in S.2863, to provide government purchase of "excess" lands on reclamation projects and their administration to facilitate public planning of the environment, preservation of open spaces and agricultural greenbelts, and return to the treasury of revenues from windfall profits in land values resulting from public investment in reclamation, so as to provide revenues to support education in the tradition of land grants for education.
2. Extend acreage limitation and residency law to irrigation and flood control benefits to land wherever in the United States projects may be constructed. The Flood Control Act of 1944 was intended as a step in this direction.

3. Assist landless persons to finance acquisition of land for farming, in the manner begun during the Great Depression through the work of the Farm Security Administration. (The subsequent thwarting of the objectives of this agency is described by Sidney Baldwin in "The Politics of Poverty.")

4. Re-emphasize the original objectives of land grant colleges of agriculture and agricultural extension services epitomized in the inscription on the walls of Hilgard Hall authored by Benjamin Ide Wheeler of the University of California, which reads: "To Rescue for Human Society the Native Values of Rural Life."

5. Create a new National Commission on Rural Life following the precedent of President Theodore Roosevelt's Country Life Commission. This Commission should study in depth and over a period of years the problems of rural society and means of ameliorating them, with the aim of fostering homogeneous, and avoiding polarized communities. In addition to measures suggested above to improve rural society, the Commission should inquire into the potentials of revising tax structures, of controlling undesirable invasions of agriculture by corporations, of relocating industry by diversion into rural communities where this can be beneficial to create employment opportunity, and of recasting and improving the role and status of agricultural laborers. The Commission should study problems and measures such as these in the broadest perspective, for the democratic character of our society is at stake as well as the best use of technology for production.

Senator **Stevenson**. Thank you very much, Dr. Taylor, for your testimony. I order printed in the record at this point your entire statement together with exhibits, some of which will appear in the appendix.

Dr. **Taylor**. Thank you.

(The information referred to follows:)

Statement before Senate Subcommittee on Migratory Labor

presenting individual views

of

Paul S. Taylor

San Francisco
January 11, 1972

Statement of Paul S. Taylor prepared for Senate Subcommittee on Migratory Labor hearing, San Francisco, California, January 11, 1972.

1. My name is Paul S. Taylor, and I reside in Berkeley, California. This statement represents my individual views. I first became familiar with migrant labor before World War I in the Middle Western Wheat Belt; since 1927 I have studied agricultural migrants in many parts of the United States. To amplify treatment of historical aspects of the problem I attach four of my previously unprinted studies on migratory workers, a recent New York Times editorial and two current Chicago Sun-Times news stories on agribusiness, with request that they accompany this statement in the printed record.

2. The Chairman has invited me to view "from an historical perspective" "current developments in California agriculture" "including the ownership, use and distribution of land, " together with their "impact on farmworkers, farmers and others whose lives are affected by it, " and the "extent to which our government policies and programs are meeting and serving the needs of all the people of rural America. " My response will relate to the 1970 headlines on the volumes of 1970 hearings, viz., "Migrant and seasonal farmworker powerlessness . . . Who is responsible?" Broadly speaking, it is the decisions of others than farmworkers - decisions in tha marketplace and in the halls of government - that create the conditions into which this Subcommittee is inquiring. Generally speaking, migrant and seasonal farmworkers simply accept and adjust to conditions created by others. With residence unstable and income low, they tend to have small influence within their communities on the wages to be paid, the housing to be furnished, the legislative protections they are to receive, etc. In those respects owners of agricultural land are far more influential. The decline in access of people to land, a consequence of unabated farm enlargement and concentration of landownership, is an important element in shaping the problems not only of farmworkers, but also of working farmers, town businessmen, and indeed all elements of rural society.

3. In California concentrated landownership appeared early, obstructing the rise of small farms owned by those who worked them. The California Constitution Revision Commission recently summarized in a staff report as follows:

> The Forty-Niner era produced several diverse breeds of persons. One of these was the claim-jumper who usually employed force to attain his ends. Another, the land pirate, often resorted to more subtle means. Fraudulent Mexican land grants were commonly employed to separate the gullible newcomer from his life's savings. By 1879, California abounded in depression debtors and the forced sale of their properties resulted in increasing hardship and concentration of land ownership in the hands of a few wealthy individuals and large corporations. . . The Constitutional Debates of 1879 were rife with denunciations of the twin curses of cheap imported labor and land monopoly. Labor-saving machinery was driving men off the land and into the cities. Huge corporate interests were said to be hovering nearby, ready to gobble up the property titles of pauperized landowners. (Article XVII, Land Ownership. Background study No. 4, October 1966. See Constitutional Debates of 1879, pages 81, 96, 100, 470, 602, 1137, 1149 and ff.)

4. These means of acquiring lands produced the condition described by Ambassador James Bryce in the early nineties as the farmers' difficulty in acquiring "small freeholds" and the reliance of California's "enormous farms" upon a "mass of unsettled labour, thrown without work into the towns at certain

times of the year." (Bryce, American Commonwealth, Chap. XC) The temper of those in charge of the land in early California was never more vividly expressed than by the California Farmer in 1854, forseeing a future of great crops of cotton, sugar, etc.:

> Americans will not become the working men of our tule land, in our Rice fields and our Cotton plantations and other departments of the same kind of labor. At the South, this is the work of the slave, but slavery cannot exist here. . . Then where shall the laborers be found? The Chinese! And and everything tends to this - those great walls of China are to be broken down and that population, educated, schooled and drilled in the cultivation of those products, are to be to California what the African has been to the South. This is the decree of the Almighty, and man cannot stop it. (California Farmer, I, May 25, 1854, 104.)

5. Without water, land in California is valuable mainly for pasturage. A Federal Commission, sent to California to explore the feasibility of irrigating lands in the Central Valley, reported in 1874 that irrigation was feasible, that government subsidies would be necessary, and that the coming of water would increase land values "many fold." (House Ex. Doc. No. 290, 43 Cong., 1 sess., 77-80) The incentive to capture these subsidies and windfall profits from anticipated public investment was electric. In 1877, only three years after the federal report, the Visalia Delta described it:

> No one would believe that shrewd, calculating business men would invest their money on the strength of land rising in value while unimproved, for even the farmer himself has to abandon it who endeavors to add to its value without water. At the same time, purchasers are not lacking who would add it to their already extensive dry domain and the people . . . will find themselves confronted by an array of force and talent to secure to capital the ownership of the water as well as of the land, and the people will at last have it to pay for. . . (May 5, 1877)

6. This 95-year old forecast explains why Congress, to protect the public interest, included in the 1902 reclamation law the well-known acreage limitation and residency requirements. These were designed to assure that prior monopoly of arid lands shall not, upon the coming of water, deny access to the many who would move up the agricultural ladder and themselves farm the irrigated soil as means of livlihood and homemaking. Reclamation law states:

> No right to the use of water for land in private ownership shall be sold for a tract exceeding 160 acres to any one landowner, and no such sale shall be made to any landowner unless he be an actual bona fide resident upon such land, or occupant thereof residing in the neighborhood . . . (43 USC 431)

7. The landless farmworker seeking access to land, in whose interest this law seeks to open opportunity, has been unable to protect his own interest. Passing a law does not assure enforcement. This law has been under tenacious attack within each branch of government. A unanimous U.S. Supreme Court decision reversed a California Supreme Court opinion holding acreage limitation unconstitutional. (357 U.S. 275) In 1959-60 Congress refused, after four days of extended Senate debate and two in the House, to exempt a California Water Project jointly using federal reservoir, pumps and canals, from acreage limitation. The administrative branch shortly nullified Congressional debate and action by giving exemption anyway. On the westside of Central Valley federal construction proceeds to serve with water 400,000 acres, around two-thirds of which are ineligible to receive it; a single owner holds over 100,000 acres within the project. In Imperial Valley

233,000 acres exceed the legal limit. The Departments of Interior and Justice refused last Spring to appeal a federal district court decision that acreage limitation does not apply to Imperial Valley, although Justice had argued stoutly in court that it does. Justice declined to argue that residency - in the same sentence of the law as acreage limitation - applies. Last November in a suit brought by landless persons a federal district judge held that residency does apply.

8. In this decision barely seven weeks ago, the federal judge cited administrative laxity and pointed to the powerlessness of the landless. The opinion holds that

> From its very inception reclamation policy has been to make benefits therefrom available to the largest number of people. . . The idea was to create a class of self-reliant family farmers . . . to provide homes for people. Homes are possible only where speculation and monopolisation are not possible. . . The fact that residency has not been required by the Department of the Interior for over 55 years cannot influence the outcome . . . it is well settled that administrative practice cannot thwart the plain purpose of a valid law. . . lapse of time serves to dramatize the unavailability of relief in the past and points toward the need for increased access to the court in the future. (Yellen et al v. Hickel, Partial summary judgment in the U.S. District Court for the Southern District of California. No. 69-124-Murray, Nov. 23, 1971)

9. Existing law aside, frequently it is argued that family farming is but a nostalgic relic of the past, and that its displacement by industrialized agriculture is inevitable and proper, especially in these days of heavy machinery. The claim of cutting unit costs of some crops has limited validity and can be easily exaggerated. As conditions approach monopoly, it is questionable how much of cost reduction is shared with consumers, and it overlooks the working farmer's self-interest in maximum production per acre. Smaller farmers generally deny the claim of superior efficiency and they support acreage limitation. Use of large-scale machinery is not dependent upon large-scale ownership of land. Contract operation of machines by smaller farmers is common practice in California today, as here and elsewhere for a century. Superior operating efficiency is insufficient explanation of the swallowing up of family farms by larger farms and conglomerate corporations. Other factors are tax loopholes to be taken advantage of by purchase of farm land, local tax practices that reflect suburban sprawl in higher assessments of adjacent land used for farming, and superior reserves of funds seeking investment hedges against inflation. A Presidential Task Force in 1967 demanded that the Interior Department "enforce the 160-acre limitation," and called for a halt to western reclamation saying that without it "the South could have stronger agricultural and rural economies, with fewer poverty stricken people." (The people left behind, 138-9)

10. A question far more fundamental than which scale of farming has the edge over the other in operating costs is to compare their total social efficiency from a public viewpoint. The impact of uncontrolled, even assisted, displacement of smaller farmers by larger, even giant farmers, is far more pervasive than simply obstructing farmworkers' and would-be farmers' access to land. The impact is felt throughout the business, social, cultural and political life of the entire rural community. A classic 1946 study comparing two contrasting communities of generally equivalent numbers and economic base, is valid today. It compared Arvin, resting upon industrialized, large-scale agricultural production with Dinuba, resting upon family-size farming. Dinuba was found to be a

community homogeneous in every sense. Arvin lacked balance and homogeniety. The smaller farm community supported nearly twice the number of separate business establishments, about 20 percent more people per dollar volume of agricultural production, a volume of trade nearly two-thirds greater, a better standard of living with expenditures for household supplies and building equipment more than three times greater. Less than one-third of the bread-winners in the smaller farm community were agricultural wage workers, compared with nearly two-thirds in the large-scale farm community. Physical facilities for community living such as paved streets, sewage and garbage disposal, were far greater in Dinuba; schools, parks and recreation facilities were more plentiful; local participation in local government was greater; organizations for civic improvement, social recreation and religious observance were twice as numerous. Dinuba supported two local newspapers, Arvin but one. (Small Business and the Community: a study in Central Valley of California on the effects of scale of farm operations. Senate Small Business Committee report No. 13, 79 Cong., 2 sess. 1946)

11. In conclusion, not only the laxly administered national reclamation law, but programs for direct financial assistance to farmers tend to favor large-scale farming. In the year immediately preceding Congressional enactment of a $55,000 ceiling on agriculture subsidy payments, a single California farming corporation received over $4 million. It may be well to observe whether the Department of Agriculture will be as lax in its interpretation of the $55,000 ceiling as the Department of the Interior has been in interpreting residency law. Government assistance to qualified landless persons to purchase farm homes, a program begun during the Great Depression, has made only limited progress toward improving access to land. Migrant and seasonal farmworkers, notably exposed to regularly recurring unemployment, are left uncovered by government programs of unemployment insurance. These are examples of imbalance in government programs which, in the interest of the whole rural community, it would be desirable to correct. With respect to reclamation I recommend specifically that Congress adopt S. 2863 sponsored by four Senators, and its equivalent in the House, H.R. 5236, sponsored by seven Congressmen. These bills aim to enforce reclamation law by authorising the government itself to purchase "excess" lands at the pre-water price at which existing law obliges their owners to dispose of them. With these lands in government possession, effective planning of the environment becomes possible through attachnent of land-use regulations, agricultural greenbelts and access of people to land can be preserved, and revenues can be devoted to the support of education in the land grant tradition. Social efficiency in the interest of the community as a whole is the proper guide to policy.

A final word perhaps should be said in partial explanation of the powerlessness of farmworkers to secure the effective enforcement of acreage limitation law that would improve their access to land in the western reclamation belt. The issue is discussed usually in terms of farming efficiency, but this obscures the powerful incentive to thwart enforcement in order to obtain speculative windfall profits that acreage limitation law says shall not be monopolized. This incentive naturally is strongest when development of cities is expected on lands receiving subsidized water under reclamation law.

An example might be the 88,000-acre Irvine ranch in southern California, which receives Colorado River water developed under the Boulder Canyon Act which authorized the building of Hoover Dam by the Bureau of Reclamation. Apparently the Irvine Company intends to develop a City of Irvine on 50,000 acres of its property, "three times the size of Manhatten Island" and anticipates that it will be inhabited by half a million people." This, of course, is but one conspicuous example. It may serve, however, to dramatize the fact that in many western reclamation areas urban speculation hopes, as well as a search for agricultural gains, explain the strong opposition that stands in the way of access of farmworkers and would-be farmers to land developed in its supply of water by the U.S. Bureau of Reclamation under reclamation law.

(Append as documents: "Acreage limitation: petty political tyranny." Western Water News, September 1969. "A $5 billion city next to crops." San Francisco Chronicle, 31 March 1971. "Planned urbanization lives with agriculture." San Francisco Chronicle, 2 April 1971."Simon calls Irvine Deal 'unjust'". Daily Californian, 1971. "Orange county water district." Western water News, Oct.-Nov. 1962. Excerpt from Imperial Irrigation District News. Feb. 1965.)

[From The New York Times, December 28, 1971]

[Editorial Page]

THE FARM REVOLUTION—I

The short but sharp fight over the confirmation of Earl L. Butz as Secretary of Agriculture turned the spotlight on some unhealthy long-term trends on the nation's farms. Despite his estimable personal qualities, Mr. Butz encountered opposition because he epitomizes the rapidly growing power of giant conglomerate corporations which have extended their activities into agriculture and are already in a position to dictate the price, quality and variety of many foods.

As in any situation where two or three suppliers are able to dominate the market, the buyers—in this instance, every housewife and her family—become victims. The quality and variety of food in this country have already begun to deteriorate because many crops are grown, harvested, and marketed in ways which fatten corporate profit margins rather than please anyone's palate.

Corporate farming is most profitable if crops can be machine harvested. The quality of most tomatoes has declined because only hard tomatoes with thick skins can be picked by machines. The same process is now being applied to strawberries and other fruits and vegetables.

These invisible losses to the housewife are matched by the social costs to the small farmers and small towns of America. Not all farmers are as badly off as the chicken farmers who have become "poultry peons," but whether a small farmer is growing potatoes in Idaho, fattening cattle in Texas, or raising hogs in Iowa, he finds that the processors can whipsaw him on prices and the corporate conglomerates with their far greater financial resources can dictate the terms of competition.

Corporations and big commercial farmers have the capital to introduce modern technology rapidly with consequences which are unplanned and unprovided for. Thus, the mechanical picking of cotton evicted hundreds of thousands of sharecroppers and marginal farmers from the land within a few years and their migration contributed significantly to the welfare and housing crises in the cities.

Up to now, in the absence of any national policy or regional plan, the agribusiness corporations have simply availed themselves of technical change to maximize profits and have left society to cope with the human consequences. They have succeeded in stigmatizing critics of their narrow, single-minded approach as enemies of progress. But the nation no longer accepts this myth where the automobile or the supersonic transport or the strip mine is concerned. It is time to examine this technological mystique of "progress" in agriculture and subject it to rational choice and deliberate judgment.

THE FARM REVOLUTION—II

A million family-sized farms were consolidated out of existence in the 1950's and another million in the 1960's. For ex-farmers, the postwar revolution in agriculture has doomed their cherished way of life. Small towns which live by serving farmers have also suffered. It has been estimated that one small town businessman goes under for every six farmers who quite farming.

Is the trend toward fewer farmers desirable? Is it inevitable? Does the taking over of the actual growing of crops and livestock by food processors and conglomerate corporations serve the public interest?

Earl L. Butz, the new Secretary of Agriculture, has evoked intense controversy because he answers these questions in the affirmative. He has predicted there will be a million fewer farms in 1980. Formerly a director of two agricultural conglomerates and a dean of Purdue University, which has close research ties with agribusiness, Mr. Butz is an unabashed apologist for corporate power.

Secretary Butz's assumptions of inevitability and progress are not necessarily valid. The rapid mechanization of Southern agriculture released many sharecroppers and marginal farmers not "to do something else useful," as Mr. Butz claims, but to rot on the welfare rolls in urban slums or—as Senate investigations of hunger have shown—to starve in rural slums.

The entrance of diversified corporations into agriculture has not produced better or cheaper or more varied food. America does not become a healthier, more diversified, more self-reliant society by reducing farmers to the status of corporation dependents wholly controlled by long-term contracts for their crops or selling in markets dominated by a few large companies.

If the nation is to contain and roll back corporate power in farming, however, there will have to be a legislative and political struggle as intense and prolonged as the effort to control the highway lobby. Senator Nelson of Wisconsin and several other Democrats have introduced a "Family Farm Act of 1972" which would require corporations owning more than $3 million in nonfarm enterprises to divest any lands used for agriculture.

But much more is needed, including a revision of the depreciation and capital gains sections of the tax law which favor corporations and wealthy non-farm investors, a law requiring processing companies to bargain collectively with cooperatives of small farmers, and a radical revision of farm subsidies and farm research priorities.

Far-reaching changes in the organization and technology of agriculture affect consumers and taxpayers as well as farmers. Only if these issues are brought out of the political ghetto of the farm bloc and made matters of widespread national concern can policies be devised which take account of all the costs and consequences of the farm revolution.

[From the Chicago Sun-Times, Dec. 5, 1971]

AGRIBUSINESS—A GRIM REAPER?

(By Nick Kotz)

WASHINGTON.—The controversy over Earl Butz's nomination as secretary of agriculture has its obvious political aspects. It also focuses rare national attention on revolutionary changes in the nation's largest business, its food supply system. These changes are having profound effects on the fate of rural America, as well as on congestion in our cities.

The obvious opposition to Butz was explainable in terms of partisan Democratic politics, of farmers' unhappiness with low corn prices, and of the nominee's role in the 1950s as an assistant to Agriculture Sec. Ezra Taft Benson, whose name still raises farmers' blood pressure. Butz is such a convenient political target that some Democratic strategists actually were worried that his nomination would be defeated by the Senate. They'd rather have him around for the 1972 election.

But another explanation is needed for the spontaneous and intense grass roots farmer hostility against Butz, a man most farmers never even heard of until his nomination recently. The issue goes far deeper than the genial, 62-year-old appointee and the exigencies of partisan politics. Butz simply symbolizes a force in the changing food supply system that many farmers have come to regard as their oppressive economic enemy.

A thumbnail sketch of Butz's career marks him to the farmer as a representative of "agribusiness"—a descriptive word that wasn't around a few years ago. For the farmer, agribusiness means all the other elements in the food supply chain that are highly organized and represent big business: the national retail food chains, the giant national food processors, and the conglomerate companies that perform an interrelated series of functions in the food system.

The farmer has seen these other segments of the food supply system consolidate their economic power while he—even as his numbers have dwindled by millions—remains unorganized and relatively powerless in the marketplace. The agricultural marketplace has changed radically and farmers wonder whether traditional laws of supply and demand function anymore. In bygone years, many buyers competed for the farmer's produce. But the middleman and the open competitive market now have virtually disappeared. For example, Safeway and A&P buy lettuce directly from the fields of California, and farmers say such companies' huge purchases set the market price.

Most disturbing to the farmer, the giant firms in agribusiness now are vertically integrating their business, combining and performing many steps in the land-to-market production of food. Ralston Purina Co. and other feed manufacturers now own, feed and process poultry for sale to supermarkets. The once independent farmer has been left with only a sharecropper's role of caring for and feeding Ralston Purina's feed to Ralston Purina's chickens. Similar integration is now planned for hogs and cattle.

In short, American agriculture has become more and more like other big business—increasingly dominated by conglomerate companies and administered prices. Even, efficient, large-size family farmers find themselves isolated at the bottom of the food chain—forced to supply cheap raw materials to the economic giants above them.

Against this background, Earl Butz steps in and Clifford Hardin steps out as agriculture secretary in a do-si-do that totally confirms the farmer's perceptions about how things really are.

Hardin started out as an agricultural economist, became an "Ag school" dean, served as a land grant university president, became agriculture secretary and now departs to become vice chairman of Ralston Purina, taking a seat on its board of directors being vacated by Butz after 13 years.

Butz also started out as an agricultural economist, served as a Purdue University department head, became an assistant agriculture secretary under Benson, then returned to Purdue where he ran the agriculture school, while serving on the board of four agribusiness corporations—Ralston Purina, Stokely-Van Camp, International Minerals & Chemicals, and J. I. Case. The energetic Butz also found time to make 100 speeches a year, mostly in the employ of the General Motors speakers' bureau, to serve on various agribusiness-financed foundation boards, and to take an unsuccessful 1968 fling at winning the GOP candidacy for governor of Indiana.

Knowledgeable farm observers in Washington are convinced that an actual Hardin-for-Butz swap was engineered by a few executives and lobbyists from agribusiness.

In political terms, the Butz-for-Hardin trade indicates that the White House has little understanding of the rising populist resentments of farmers and small town businessmen. The merchants watch their towns dying, as more and more farm houses are boarded shut, and as the new conglomerate farmers buy their supplies wholesale from the factory rather than from local stores.

President Nixon and the Republicans are not unique in their failure to respond to these growing rural concerns. The Democrats have not performed all that differently. With either political party, the economic power of agribusiness has far more political clout than farmers have, except where they have joined in giant, corporate-like co-ops. When Butz was questioned by the Senate Agriculture Committee, Sen. Hubert H. Humphrey (D-Minn.) made much ado about farm prices and the farm programs of Ezra Taft Benson. But he did not touch on the agribusiness ties of Butz. Agribusiness companies and their executives have been among Humphrey's major political supporters.

When Butz said there would be a million fewer farms in 1980 than there are today, he was merely agreeing with estimates of USDA's economists. The nation lost a million farmers under Benson and another million under Orville Freeman and neither official was to blame, or could do anything about it, said Butz. But it is not politic to say such things and silence about hard truths has obscured what is really happening.

Much of the decline in the nation's farm numbers has probably been unavoidable. Industrialization, scientific developments, and new economic arrangements made it inevitable that millions would fall by the wayside.

The central issue for national policy today, however, should be whether this trend will be permitted to continue to the point where rural America becomes a wasteland, devoid of people, except for those farmers who serve agribusiness factory farms as feudal serfs. The continuing depopulation of rural America adds greatly to urban problems.

Butz, along with most persons making farm policy today, regards present farm trends as inevitable and representing "progress."

If the nation decides, however, that it cannot afford too much more of this kind of agricultural progress, then it will have to pursue far more radical policies than those which both Democrats and Republicans have addressed to the "farm problem."

The price-support and acreage-retirement programs historically have served the interests of the wealthiest farmers, rather than millions of small family farms.

If the efficient family farmer-businessman is to survive, he will need far more help than just another farm program. Farmers need legal authorization for collective bargaining power similar to that now held by labor unions. Small farmers and farm workers need financial and technical assistance to organize co-ops. Farm workers need unionization to win a living wage. Antitrust laws will have to be applied vigorously against agribusiness firms that try to monopolize farm commodity or food systems. The government will have to direct its vast food purchasing power toward the family farmer, rather than as a subsidy to agribusiness.

Government and university officials will have to break up the cozy triangular arrangement in which government and land grant colleges serve agribusiness and neglect other rural interests. The career of Butz at Purdue typifies this arrangement. But it is not unusual, except perhaps for the number of his corporate directorships. Agribusiness firms put money into the land grants for research that will directly benefit themselves, and the universities and federal government eagerly co-operate. Too often forgotten are the needs of family farmers, farm workers, and rural communities.

The nation also will have to bring more than political rhetoric to the concept of "rural development," which is now being served up as a magical alternative for those displaced from agriculture.

The President's proposal to replace present rural aid programs with several billion dollars in revenue sharing would represent scarcely a drop in the bucket to meet needs of the vast rural expanses that lack services and jobs. As an alternative, the Senate Agriculture Committee is pushing a rural development bill, but the question is seldom asked: Development for whom?

A Johnson administration idea for rural development in Mississippi included creation of a vegetable industry in which wealthy cotton planters would be the growers and processors. Farm workers and small farmers who share in this plan would have $1.30 an hour jobs picking vegetables and $1.60 an hour jobs in the processing plant. But even such rural development schemes as these have been few.

The last three Presidents have talked in generalities about the need for rural development and population balance. It will take a lot more to bring prosperity back to rural America.

GROWING PAINS DOWN ON THE FARM

FARM LOBBY—A FEEBLE VOICE ON CAPITOL HILL

(By Nick Kotz)

WASHINGTON.—The name Tenneco is not yet a household word to U.S. consumers, but it weighs heavily on the minds of the nation's embattled farmers and of government officials who worry about the cost of food and the fate of rural America.

For Tenneco Inc., the 34th largest U.S. corporation and fastest-growing conglomerate, has become a farmer.

Its new activities symbolize an agricultural revolution that may reshape beyond recognition the nation's food supply system. Dozens of the largest corporations with such unfarm-like names as Standard Oil, Kaiser Aluminum and Southern Pacific have diversified into agriculture. What concerns farmers, processors and wholesalers is that the new breed of conglomerate farmers does not just grow crops or raise cattle. The corporate executives think in terms of "food supply systems," in which they own or control production, processing and marketing of food.

"Tenneco's goal in agriculture is integration from seedling to supermarket," the conglomerate reported to its stockholders. Its resources to achieve that goal include 1970 sales of $2.5 billion, profits of $324 million and assets of $4.3 billion in such fields as oil production, shipbuilding and manufacturing.

The conglomerate invasion of agriculture comes at a time when millions of farmers and farm workers have already been displaced, contributing to the problems of rural wastelands and congested cities. More then 100,000 farmers a year are quitting the land, and more than 1.5 million of those who remain are earning less than poverty-level farm incomes. Their plight is severe.

Although the U.S. census still counts 2.9 million farmers, 50,000 grow one-third of the country's food supply and 200,000 produce more than one-half of all food. The concentration of production is especially pronounced in such crops as fruit, vegetables and cotton.

In 1965, 3,400 cotton growers accounted for 34 per cent of sales, 2,500 fruit growers had 46 per cent of sales and 1,600 vegetable growers had 61 per cent of the market.

The medium to large-size "family farms"—annual sales of $20,000 to $500,000—survived earlier industrial and scientific revolutions in agriculture. They now face a financial revolution in which traditional functions of the food supply system are being reshuffled, combined and co-ordinated by corporate giants.

"Farming is moving with full speed toward becoming part of an integrated market-production system," says Eric Thor, an outspoken farm economist and director of the Agriculture Department's Farmer Co-operative Service. "This system, once it is developed, will be the same as industrialized systems in other U.S. industries."

Efforts to bar large corporations from farming have come too late, says Thor: "The battle for bigness in the food industry was fought and settled 35 years ago—chain stores versus 'ma and pa stores.' "

Contrary to popular notion and most galling to the efficient, large, independent farmer, the corporate giants generally do not grow food cheaper than they do. Numerous U.S. Agriculture Department and university studies show that enormous acreage is not needed to farm efficiently.

For example, maximum cost-saving efficiency is generally reached at about 1,500 acres for cotton, less than 1,000 acres for corn and wheat, and 110 acres for peaches. Thousands of independent family farmers possess such needed acreage, and farm it with the same machinery and techniques used by their new rivals.

In fact, studies show that the largest growers incur higher farm production costs as they employ more workers and layers of administrators.

The farmer sees everyone he must deal with in the food production system acquiring more power—except himself. The supermarket chains, the grocery manufacturers and the new conglomerate farmers all have economic clout in the marketplace and political influence in Washington. Even migrant farm workers, still the lowest paid laborers in the country, have made some progress, signing contracts with the new conglomerate farmers, who are vulnerable to boycott of their brand products.

Only the individual farmer, with the exception of powerful co-operatives in a few crops, remains unorganized in the marketplace.

A battle to achieve market power now pits rival farm producer groups against each other, farmers against processors and farmers against migrant farm workers.

The battle has produced some strange new alliances and has strained old ones. It is now being fought with strikes and boycotts and in the halls of Congress.

In terms of effective political power, the 200-odd Washington lobbyists representing the food industry are far more influential than farmer lobbyists. Food processors have plants scattered all over urban America and can appeal to urban as well as rural congressmen. For example, the Grocery Manufacturers of America, a trade association, maps out its legislative campaigns with charts showing the location of food plants in each congressional district.

"Most members of the agriculture committees wish this farm bargaining issue would just go away," says one agribusiness lobbyist. "Whatever they do, the politicians figure they will make one friend and six enemies."

The Nixon administration also feels and reflects the conflicting pressures from farmers and food manufacturers. The administration has tentatively supported a Farm Bureau mandatory bargaining bill. But a high administration source confides.

"The White House owes a political debt to the Farm Bureau, but we aren't very enthusiastic about this legislation. If you look at our proposed qualifying amendments, you'll see there really isn't much left."

The political disputes and maneuvering are still largely regarded by consumers, urban politicans and the news media as intramural issues involving "the farm problem."

But the broadest issue involves the future shape of America and of its rural communities.

What will become of rural America if the greatest migration in history—40 million to the cities in 50 years—is further accelerated? Farmers have provided the economic base of the small towns and that base is becoming perilously small.

[From the Western Water News, September 1969]

ACREAGE LIMITATION: PETTY POLITICAL TYRANNY

(By Robert W. Long)

Slightly over a century ago, the Civil War strived to settle by combat a few issues involving human rights, plus a decision as to who would govern a young nation. At the same time an economic decision was made by someone unknown that government policy relating to distribution of government lands to war veterans (the 1862 Homestead Act) would be limited to 160 acres.

Such an expanse of land no doubt represented an adequate economic unit at the time. By the turn of the century this principle was established doctrine in the minds of eastern and midwestern politicians and therefore readily incorporated into the Reclamation Act of 1901, which governs the unit of land to be served by irrigation water from federally sponsored projects. It was also hazily referred to in the Boulder Canyon Project Act of 1927 when the Colorado was finally harnessed for the benefit of the entire southwestern region of the United States.

The result of these actions is that Western United States have been forced to live under an archaic and ridiculous law, fostered by provincialism and eastern political jealousy, for over a hundred years and thereby subjugating economic realism to petty political tyranny. Even in our modern era, when the West has gained in political strength through population migration, there continues to be substantial resistance to change from unconcerned Congressmen representing regions with little or no involvement and our own liberally-oriented Representatives.

Part of the continued opposition to a realistic revision of this old law stems from a misconception that by these means the myth of a small family farm will be sustained. Volumes of literature have been written on the issue of acreage limitation by federal fiat and tons of recorded testimony in Congress have piled up over the years in an almost unbelievable mass which today serves as a monument to how a free republic can bog down in a nearly hopeless tangle of sentiment, petty politics, legalism and economic unreality.

The State of California has finally come out with the first sensible program since U.S. Senator Clair Engle attempted to devise a workable formula to solve the problem in the mid-1950's. Briefly, California has proposed that all restrictions relating to irrigation water from Federal projects be initially set at 640 acres and that anything above this level be subjected to additional levies to be determined by administrators in localized regions. This proposal deserves serious and prompt consideration as a step toward correcting the increasing inequities which are arising from attempts to administer a ridiculous law in our rapidly changing agricultural economy.

There is absolutely no merit to continuing this ancient concept; and worse, it is tending to inhibit the necessary adjustments in new methods of food producting in this country, thereby forcing our highly mechanized agricultural industry to compete with domestic and world production at a still greater disadvantage than ever before.

Is this sound public policy? Is it really fair or just for nearly two-thirds of a geographic area in America to subject the Western third of the nation to a form of vassalage? Maybe this is what causes the seeds of a civil war. Instead, our Western Representatives should present to Congress a united front in support of modernizing reclamation law relating to Federal irrigation projects. Everyone will be a winner. It is urgent that we place before the Congress this year a united front, and I urge our Western Representatives to support California in this important effort.

[From the San Francisco Chronicle, Friday, Apr. 2, 1971]

PLANNED URBANIZATION LIVES WITH AGRICULTURE

(By Henry Schacht)

When James Irvine bought around 100,000 acres of Spanish grant land in 1864, he could not have guessed that just over a century later it would be this country's most astonishing example of agriculture living successfully side by side with planned urbanization.

The Irvine Company owns approximately one-fifth of Orange county. The largest master-planned acreage in the world under one ownership, we were told when we toured the new City of Irvine and the neighboring Irvine Ranch early this month.

Six thousand acres are in orchards. Irvine is the largest Valencia orange grower in the State. Thirteen thousand acres raise alfalfa, vegetables, nursery crops, and berries. Another 50,000 to 60,000 acres of barley and rangeland support the cattle operation.

Even though much of the ranchland is now in an agricultural preserve to protect against urban-level taxation, intensive development is necessary to make the ranch pay off in its situation.

When we were there a thousand crates of asparagus were being packed daily. Half or more were being flown out to European markets. Eleven hundred acres are planted to asparagus. The plan is to expand to 1500. The ranch will have $450 invested in every acre of "grass" when it comes into production. Not until the third year of cutting will it show a profit. But Irvine hits an early market with good quality and heavy yields. Over the pull asparagus should be a winner.

The ranch has also placed its faith in such crops as celery, cauliflower, string beans, bell peppers, lettuce, carrots, tomatoes, sweet corn, cabbage, parsley. A typical rotation, we were told, might be from celery into canning tomatoes and after that to sweet corn and cauliflower.

Strawberries are a leading crop. Yields run as high as 25 tons to the acre. Management thinks this can be surpassed substantially in the future.

Orchard land raises oranges, lemons, grapefruit and avocados. A major long-range readjustment is in progress with the orchard crops. As older orchards, or orchards hit by "quick decline" of citrus, are pulled out, they are not replanted in the flat valleys that run into the hills. Instead they are being moved up to higher, warmer hill land where frost danger is lower. Sprinkler irrigation makes it possible.

Water for the ranch comes 27 miles by gravity flow from Irvine Lake reservoir. Some also is drawn from Colorado river water. And 10,000 acre feet are pulled up from the ranch's own deep wells. Rainfall on the average is only eight to nine inches.

At times heavy winds shrill through these coastal hills and valleys. To protect crops and orchard trees windbreaks of eucalyptus are planted for miles. When new land is to be developed windbreaks are planted two or three years ahead, water being hauled to the young eucalyptus, so protection will be there when the new plantings need it.

Another budding problem born of the surrounding urbanization is smog. Leafy vegetables already are showing some effects. Citrus may, too.

When the Irvine Ranch was founded this was cattle country. The ranch still runs a herd of 15,000 Herefords. But the economics of the cattle business in recent years had led management to buy stocker cattle for later sale to cattle feeders. They come from Mexico and the Plains. Lower grade cattle, mixed, looking "like a cross between a jackrabbit and a beagle," but they make money on the Irvine range.

The uninitiated may equate a big ranch with big profits. Bigness can just as well mean bigger than average losses without expert management. We gathered that the ranch was under pressure to produce as a "profit center" within the huge Irvine Company complex. We didn't see the books but got the feeling things were in hand.

[From the San Francisco Chronicle, Mar. 31, 1971]

A $5 BILLION CITY NEXT TO CROPS

(By Henry Schacht)

Back in the 1800s three men named Bixby, Flint and Irvine got together to buy up two and part of a third Spanish ranchos.

They did quite well on their deal.

Bixby's land now includes the city of Long Beach and some choice oil properties.

If you were to stand on the corner of 7th and Broadway in downtown Los Angeles Flint's land would be all around you. Buried under office buildings.

Irvine's properties are now administered by the Irvine Company which is still extensively engaged in ranching but is simultaneously developing a planned city destined to cover 50,000 acres of company territory and be inhabited by half a million people.

This stunning development lies today cheek by jowl with citrus grooves, asparagus fields and rolling coastal rangeland.

The city of Irvine is to be three times the size of Manhattan Island. The final tab for creating it is estimated at $5 billion with the land alone valued at 20 per cent of that.

We toured it the other afternoon in the company of Bill Williams who heads the Irvine ranching setup. We liked what we saw. The city is planned to the nth degree. It is both functional and beautiful. One Irvine official is quoted as saying, "The people are coming here whether we plan for them or not." Irvine has done the planning. The whole thing is remarkable.

After our bus had passed through downtown Irvine, past the huge University of California campus and through the surrounding residential developments, it seemed impossible that just over a ridge cattle should be grazing near the faded red barns of the livestock headquarters.

We ate barbecued steak in an oak grove in Bomber Canyon. Looking around you might have thought you were in some faroff coulee of Montana. Yet over the hills in one direction was Irvine and in the other the beach community of Newport.

How can an agricultural operation live right next to that kind of high-density, high-tax development? By the book the taxes and the restrictions should kill you.

One thing Irvine has done is to take advantage of the law permitting ranchers to place their land in an agricultural preserve, agreeing not to turn it over to commercial development so long as it is taxed only at its agricultural potential.

Forty-eight thousand acres were placed under such an agreement with Orange county in 1969. The term is 10 years. Time to breathe and plan.

Another move has been to switch land out of older crops such as grain and into higher-cost and higher-risk, but also higher-profit, crops.

Bill Williams says, "If we still grew barley, as we were years ago, at $2 an acre profit, or were trying to grow low-profit lima beans instead of asparagus and strawberries, or if we were still planting orchards at 48 trees to the acre instead of 140 to 160 now being planted, we simply could not stay in business."

This is what it takes to survive as a rancher in one of the Nation's fastest-growing counties and right next to the largest planned city on our continent.

[From the Daily Californian, Berkeley, Calif., Oct. 6, 1970]

SIMON CALLS IRVINE DEAL "UNJUST"

(By Craig Oren)

LOS ANGELES.—Norton Simon, a member of the UC Board of Regents, charged yesterday that private interests would be "unjustly enriched by $430 million" in connection with a proposed development plan for the area round the Irvine campus.

At a press conference in the Ambassador Hotel, Simon announced that he would ask the Regents to file suit against the Irvine Company, which owns some 80,000 acres of land around the Orange County campus.

The Company, in response to Simon's charges, promptly denied any wrongdoing.

The story behind Simon's allegations goes back to 1960, when the University decided to locate a new campus on the Irvine Ranch, which is owned by the Company.

STUDENT HOUSING

The University negotiated an agreement with the Company, under which the University was given the 1000 acres on which the Irvine Campus is located and an option to buy on another 660 acres to be used for student housing.

In return, the Company agreed to accept as a "preliminary planning concept" a plan calling for development of a 10,000 acre, "University-oriented" community, of about 100,000 in population.

Under this plan, housing for students and staff would be provided near the campus. The main business district and City Hall of the proposed City were to be very close to the campus.

Several years later, in 1964, the University exercised its option and purchased 510 acres. Since then, student housing has been constructed by this land, although there still is a substantial housing shortage that has forced many students to live far from the campus.

REVISION

Now, however, the Irvine Company wants to revise the original plan. According to a new proposal released in March, the city would have a population of 430,000 and would cover, not 10,000, but 53,000 acres of land.

In addition, the area around the campus would be high-income housing and the downtown area would be more distant from the campus.

Simon claims the move is aimed at increasing the Company's profits. In a prepared statement, Simon said the move would profit the Company at least $430 million. He based this figure on an average price rise of $10,000 per acre after development, which Simon claims is a conservative estimate of what the actual increase in value would be.

The Irvine Company's executive vice-president, Raymond L. Watson, maintains that the revised plan was adopted "in order to better plan for the entire area."

"People are going to come to Orange County whether we like it or not," Watson maintains. "Our only choice is whether or not we will plan for them or not."

"INTEGRITY IMPUGNED"

Watson also called Simon's charges "groundless implications. We categorically deny any allegations that impugn the integrity of our planners," he said.

Watson contended that provision had been made for student housing. "The University is building housing in the 510-acre area we sold them," he said.

"ANOTHER ISLA VISTA"

But Simon maintains that the proposed plan will result in "another Isla Vista" and will result in slums in neighboring cities. "This plan is a disaster for the University," Simon said.

Simon has expressed opposition to the plan since its announcement. However, he has gained little support from fellow Board members.

Simon has indicated that if he cannot persuade the Board to sue, as is considered certain, he will initiate independent legal action to stop the plan.

The Orange County Water District—A Magnificent Accomplishment Based on Local Ingenuity and Local Funds

(By Howard W. Crooke, Secretary-Manager, Orange County Water District)

OUTLINE OF PROGRAM

The format for the expanded program was provided in the 1953 and later amendments to the Orange County Water District Act adopted by the California Legislature. These amendments expanded the area of the District to include all the lands receiving water from the groundwater basin. In addition to an ad valorem tax on all properties within the District. The 1953 amendments provided for the levy of a water replenishment assessment or "pump tax" on all ground water produced, at a rate which would take care of replacing the annual overdrafts.

More recently, in 1961, the Legislature adopted amendments to the Act which provided for an increase in the ad valorem tax from not to exceed 8 cents per $100 of assessed values to a top limit of 20 cents per $100, with all funds accruing from any levy over the 8-cent rate to go into a special fund designated as the "Water Reserve Fund," to be used exclusively for the purchase of water for ground-water replenishment—water from outside the watershed of the Santa Ana River.

DRY YEARS, PLUS GROWTH

The year 1959–60 was the second driest season in the history of Orange County. The following year was the driest of all time. Demands for water in Orange County in these same periods increased in direct proportion to the area's well-known population and industrial growth. In spite of this adverse combination of circumstances, due to the District's water importation program, well levels were held about constant during this period. With the return of near normal rainfall in the 1961–62 season, well levels raised substantially.

During the 1961–62 season, about 85 per cent of the water used in Orange County was imported for direct use and ground-water replenishment. As previously stated, the Orange County Water District imported 220,000 acre-feet of Colorado River water for ground-water recharged in 1961–62. Because the near normal rainfall that year was well distributed, irrigation of lawns and crops was drastically reduced.

THE DRAMATIC RESULT

A dramatic result of this favorable set of circumstances is brought into focus by the rise in well levels throughout the area of the District. For example, all the wells operated by the City of Santa Ana, which are located approximately in the central portion of the basin, were 17 feet higher on the average on September 1, 1962, as compared with September 1, 1961.

Obviously, such progress has been at considerable expense to the citizens of the District. The cost of the water that was purchased for ground-water recharge alone in 1961–62 was nearly $3,000,000.

LEADERSHIP AND FORESIGHT

Those leaders whose foresight sparked the present replenishment program have continued to look beyond the horizon. The District is now laying plans that will preserve the integrity of the ground-water basin and assure a firm water supply in spite of possible adversity in the area of the District.

[Excerpt from statement by Paul S. Taylor in opposition to H.R. 9 proposing authorization of the Colorado River Basin Project, March 1967, House Committee on Interior, 90th Cong. 1st Ses., p. 687]

The Chief Counsel of Imperial Irrigation District, Reginald L. Knox, is reported to have said that "If the (Imperial Valley) opinion of Solicitor Frank Barry is correct, it also applies to all areas receiving water from the Colorado River, including land in the Metropolitan Water District which supplies water to some extremely large holdings on the coast. According to Knox, there has never been any reference to that area, but if the opinion is correct, it would necessarily apply there also." Imperial Irrigation District News, Feb. 1965, Vol. XXVI, No. 9, p. 1. Apparently the Secretary of the Interior has made no move to apply the law to lands receiving water from the Colorado River under the Boulder Canyon Act through the Metropolitan Water District of Southern California.

[From the Bay Guardian, San Francisco, Calif., May 19, 1967]

THE BIGGEST GRAB OF THEM ALL

Once again, as Paul Taylor warns in the start of an important series on page 3, the battle is on to abolish the 160-acre minimum in Theordore Roosevelt's Reclamation Law. The purpose of this great act of conservation was simple; to prohibit land and water monopoly, to allow the landless to own and work farms of their own, to distribute to the many the benefits of public water and public reclamation.

It never worked that way in California. Land speculators early got much of the choice California landscape and wholesale evasion of the reclamation law allowed them, not only to retain it, but to skyrocket its value through publicly subsidized reclamation. Now, their descendants want to make the sky the limit by abolishing the limitation outright.

It should be clearly understood that these landowners are asking the public to give them the use of water that belongs, not to them, but to us all. Further: it should be clearly understood that they are asking the public to contribute about $1,000 an acre toward the cost of getting water to them—money they never pay back. In the San Joaquin Valley, for example, some 36 landowners own three-quarters of a million acres; getting water to their lands will cost the public some three-quarters of a billion dollars.

It is unconscionable that the taxpayers of California, as well as of the nation as a whole, should be asked to supply this gargantuan subsidy for the benefit of a handful of private and corporate interests. For the point is that the original 160-acre provision was and is a large subsidy—now $160,000 per person, $320,000 for man and wife—which was fully justified if it opened up land to landless farmers, workers and veterans, if it arrested the dangerous trend to corporate and absentee farming and if it helped conserve the state's valleys and farmlands.

But these are opportunities that can be realized only if the reclamation law is preserved and enforced in the public interest, not abandoned on behalf of private interests.

Now, with the press of population and the loss of 365 acres of farm land a day in California, the law offers the greatest opportunity of all: the machinery by which the federal government can buy excess acreage to preserve valuable agricultural land, to assure greenbelts around cities and to control urban sprawl and to conserve the state's natural heritage.

[From the Bay Guardian, San Francisco, Calif.]

A BAY GUARDIAN INQUIRY INTO RECLAMATION

"TODAY THE LAW IS TWISTED INTO A PROGRAM TO BRING HUGE SUBSIDIES, VAST UNEARNED INCREMENTS, AND MONOPOLY OF WATER TO A FEW"

(By Paul Taylor)

Gov. Reagan has now assumed leadership in the 80-year-old campaign of huge landowners to grab the West's most valuable resource—water.

The grab centers, as it always has, upon Theodore Roosevelt's Reclamation Law and overriding the 160-acre provision that prohibits land and water monopoly by limiting the use of federally developed water to no more than 160 acres per owner and 320 acres per man and wife in California.

Sen. Wayne Morse once called the attacks upon this anti-monopoly provision a proposed "water 'steal' reminiscent of the great scandals" of Teapot Dome and the "great land frauds." At stake in the fight to eliminate the provision: hundreds of millions of dollars of public subsidies, the course of much future development in California and the perpetuation of concentrated political power that goes with land and water monopoly.

Reagan has called the provision "archaic," asked for revision in "the public interest" and appointed a task force to make recommendations within 90 days.

Members are distinguished, his news release asserts, by their "intimate knowledge and substantial experience" with the problems. The point: the committee is heavily freighted with the same land-holding interest (chairman: Burnham Enerson, water attorney for the Kern County Land Co.) who have fought for decades to abolish the ceiling and open the floodgates to subsidized water.

Given the governor's mandate and the make up of the committee, there is little doubt but what it will recommend.

The practical purpose and effect of the 160-acre law are often misunderstood by the public. It is to place a ceiling on the amount of public subsidy that an individual landowner may lawfully receive (about $160,000) and a man and wife (about $320,000.)

Have modern conditions made public subsidies of $160,000 and $320,000 unreasonable, and consequently "archaic?" What should the ceiling be? Should the sky be the limit? The urge to remove subsidy ceilings of this magnitude makes attacks upon the 160-acre limitations by landholders with 50,000 to 150,000 acres readily understandable, but, from any public point of view, hardly justifiable.

I invite the attention not only of Californians to this question, but of people in all parts of the nation, whose money is being misused in the West, whose sons are being confronted in the West with opportunity diminished below the intention of the law and whose solemn statutes are being twisted like pliant rubber hose from their true purposes under the pressure upon public officials from powerful western interests.

The truth is the first casualty in the usual public discussion of the 160-acre law and California's water development. So let us begin by speaking of truth and of its concealment, for the next step after evasion of the truth is evasion of the law.

The truth about the 160-acre law can be discovered easily. It can be read in the text of the law itself as enacted by Congress. It can be read in a penetrating analysis by a faithful and competent administrator of the law, former Secretary of the Interior Harold Ickes. It can be read in authoritative words of the Supreme Court of the United States interpreting the law.

The statute says simply, that "No right to the use of water for land in private ownership shall be sold for a tract exceeding 160 acres to any one landowner."

Ickes, secretary of the interior under President Franklin Delano Roosevelt, said that "It is the age old battle over who is to cash in on the unearned increment in land values created by a public investment." (Ickes to Frank Clarvoe, editor of the San Francisco News, Oct. 31, 1945)

The Supreme Court spells out the functions of the 160-acre limitation unmistakably: "That benefits may be distributed in accordance with the greatest good to the greatest number of individuals. The limitation insures that this enormous expenditure will not go in disproportionate share to a few individuals with large land-holdings. Moreover, it prevents the use of the federal reclamation service for speculative purposes." . . "irrigation . . . . without interest charge is a subsidy, the cost of which will never be recovered in full."

The function of the 160-acre limitation, then, is to assure that the people's money and the people's water are used to create opportunity for the many, by preventing the few from monopolizing the subsidies, the water, and the incremental land values created on reclamation projects by public appropriations. I refer specifically to reclamation projects in the Imperial Valley and in southern California under the Boulder Canyon Act and northward in the San Joaquin and Sacramento Valleys in the Central Valley project.

Here are the clues, in acres and dollars, of the magnitude of the stakes and power of motivation for the Western forces to evade the reclamation law. About 200,000 acres, or 40 per cent of the irrigated lands in Imperial Valley, receive California River water in evasion of the law.

In the San Joaquin valley, 36 large landholders have been identified as owners of three-quarters of a million of acres of irrigable land, averaging 22,000 acres apiece. At Westlands, on the west side of the San Joaquin Valley, owners of 400,000 acres—an area about half the size of Rhode Island—are on the eve of receiving illegal water from the Bureau of Reclamation. Southern Pacific alone holds 120,000 acres here.

There, at Westlands, the national treasury is pouring a half billion dollars onto a half million acres, with assessed value of only $26 million, and present population of only 25,000 persons. Unless their owners qualify their lands under the 160-acre limitation, three-quarters of the half million acres are legally disqualified from receiving benefits in the form of public money and public water.

To recapitulate, the plain truth is: (1) reclamation heavily subsidizes private landowners; (2) the 160-acre limitation, properly enforced, prevents water monopoly, places a liberal ceiling on individual receipt of public subsidies and controls distribution of unearned increment in land values—all to protect the many from the few; (3) the 160-acre limitation, applying to ownership rather than to scale of operations, does not stand as a barriar to efficiency as embodied in mass production methods and use of machinery on a large scale.

These are truths. They expose untruths which underly evasion of law and the campaign to remove the 160-acre limitation.

What are the techniques of law evasion? They are as numerous and ingenious as representatives of large landholdings and unsympathetic administrators can conjure up. A few examples:

Ignore the legal prohibition of delivery of water to an individual for more than 160 acres, and substitute delivery of water to a district, instead, allowing the district to distribute the water as it pleases.

Ignore the legal requirement of agreements from owners of excess lands prior to letting contracts for construction and, instead, construct the project first, leaving excess-land owners unlimited time thereafter to volunteer, or not to volunteer, to dispose of their excess lands.

Create an outright fiction. The truth is that the law applies to all project water, whether it reaches land by canal on the surface or by underground reservoir. The tactic is to simply ignore the law if the water reaches the land via the underground, an escape hatch used since 1937.

Opposition to the excess land law moves in two main directions, attack on the law itself and pressure on administrators to weaken enforcement. The former tactic is preferred, for congressional exemptions are final, if they can be won. However, the effort to obtain outright exemptions is likely to arouse popular and effective resistance in Congress. But, of the alternative, a spokesman for large landholdings candidly explained to Congress that in some cases nonenforcement "would not be a safe solution . . . landowners could not rely on continued future nonenforcement." The twin campaigns against the law and its administration have proceeded simultaneously with fluctuating intensity. Gov. Reagan now breathes life into the first.

We stand face to face with the end of the reclamation era. Reclamation began as a great measure of conservation initiated under President Theodore Roosevelt, planning and assisting the development of western waters to create opportunity for the many.

As now administered, however, the program is no longer reclamation. It is twisted into a program to bring huge subsidies, vast unearned increments and monopoly of water to the few. We are not only "giving away" to a very few the water that belongs to all the people; we are spending huge sums of the public's money, a large portion of which never is returned to the treasury, to make sure that the few actually receive these waters that belong to the many.

Instead of gratitude for this largess, the law is attacked as "outmoded," and unfair by those whom the law sought to bring under its control, but who now virtually control the manner of its administration on the greatest of the reclamation projects. Since Congress and the Supreme Court have sustained the law, the pressures are heavy upon administrators to provide the exemption that the legislative and judicial branches of government have denied.

The plain fact is that the real orientation of the 160-acre limitation from 1902 to this very day, is and always has been toward the future, not the past.

The future that impends in California is a future without open spaces in its valleys, without greenbelts, with its most productive agricultural lands overwhelmed by ever-spreading urban slurb and sprawl, prospectively, from San Diego to Mt. Shasta. Measures initiated by the State, although commendable in purpose, are limited in possible effectiveness, and could be greatly augmented by a program of government purchase of excess lands.

According to estimates by the AFL-CIO, there are 900,000 acres today in California that are "excess" and not in conformity with the requisites of the 160-acre limitation.

Government purchase of these excess acres would be a long step toward assuring conservation of natural beauty in the valleys and on the plains of California and the West. The West has a right to demand that the federal government live up to its responsibilities under reclamation law for the quality of its future.

[From the Bay Guardian, San Francisco, Calif., June 29, 1967]

IF REAGAN IS SERIOUS . . .

A. Alan Post, state legislative analyst, wrote cautiously in examining Gov. Reagan's 1966–67 budget, but his meaning was unmistakably clear.

The State Water Project, he said, is "increasingly monopolizing the state's bonding capacity." More: future water bond sales "may increasingly intrude on the sale of other general obligation bonds of the state." Still more: "To the extent that this occurs . . . the effect will be either higher interest rates for all state bonds, whether water bonds or school bonds, greater financing of other programs from increased taxes, or the curtailment of expenditures in either the water program or other programs."

What does this mean? This means, as Prof. Paul Taylor makes plain in his demolition job on the water plan on the opposite page, that the people of the State of California are further subsidizing the public movement of public water to enrich a handful of huge private landowners, mostly in Southern California. The ultimate cost: billions of dollars. It is almost that simple.

Reagan, faced with Post's financial alternatives, is spelling out his preference in letters of 96 point Tempo Bold. First: He intends to curtail expenditures for "other" programs, beginning with education and mental health. Second: he intends "greater financing of other programs from increased taxes"—in the case of education (perhaps from higher student tuition fees); in the case of BARTD (perhaps from higher bridge tolls charged to motorists.)

Third, he has no intention of applying the same budget-chopping standards to the financing of the water project that he does to everything else. Rather: He intends to spend $100 million more on the project in 1967–68 than did his predecessor, Gov. Brown, in his last fiscal year in office. This will bring the state's project expenditures to a grand total of $370 million a year—almost three times the annual expenditures projected in 1960 by the project's feasibility report.

Reagan's silence on the state's massive contribution to the project contrasts sharply with his eloquence on austerity for everybody else. To cut education, mental health and other humanitarian programs while raising the ante to keep this special interest project moving—this more than anything illuminates the shallow base of Reagan's Creative Society.

More: this isn't even good business. For, as Taylor points out, the whole project easily could be returned to the federal government where it belongs. This would free California of horrendous expense and it would help insure that monopoly and speculation would be controlled by federal reclamation law on land benefitting from federally developed water.

"This alleged state project," Sen. Wayne Morse once said, "is merely a vision created in the hope that it can somehow transform everybody's water to water reserved only for a few people." This is the point of the project: "everybody's water," moved at "everybody's" huge expense, for the luxury of a "few people."

If Reagan is serious about economy, this is where he can start.

[From the Bay Guardian, San Francisco, Calif., June 29, 1967]

THIS INCREDIBLE WATER PROJECT—YOU PAY FOR THE GREED OF GIANT LANDOWNERS

PART 2 OF A BAY GUARDIAN INQUIRY INTO THE UNFOLDING DRAMA OF WATER

(By Paul Taylor)

Popular efforts to move water in vast quantities, like building the pyramids of Egypt, provide some of the west's historic dramas. Moisture comes to the western earth unevenly in quantity, and inconveniently in time.

So the problem for technology is to move water from where it falls at the "wrong" places and at the "wrong" seasons to lands elsewhere that can be made productive when it comes at the "right" places and the "right" seasons.

The problem for public policy, in words of the Supreme Court, is to insure that popular water-moving efforts bring "the greatest good to the greatest number of individuals."

The California State Water Project has now become the most important and controversial act in this continuing drama of water. It seems fitting, therefore, to use dramatic form to present this account.

PROLOG

The cost of huge dams, and canals running hundreds of miles, always has been far beyond the ability of immediate landowning beneficiaries to pay. They always have needed public subsidies and lots of them. Everybody in the West knew this at least as long ago as 1902.

Western citizens and their representatives in Congress—Californians prominent among them—united at that time in appeals to Congress to bear financial water-moving burdens too heavy for landowners and even for states.

The 57th Congress responded: "Yes, under suitable legal controls over private monopoly and speculation in the benefits from Federal appropriations, we will open the doors of the Federal Treasury."

The 160-acre Reclamation Law insured this principle of control by limiting the use of federally developed water to no more than 160 acres per owner and 320 acres per man and wife in California. The practical purpose was to place a ceiling on the amount of public subsidy an individual landowner could lawfully receive (now about $1,000 an acre.)

Later, when reclamation projects generated hydroelectric power, Congress added a public power preference clause of lower power rates to consumers. Thus: the meaning of the phrase "under reclamation law" combined openhanded financial largess to private beneficiaries with stringent public controls over monopoly and speculation.

The objective of the present drive against the 160-acre provision is simple: to destroy public controls, but to retain the largess.

California reaffirmed 30 years later the 1902 decision pointing to the desirability of federal, instead of state, financing for water-moving programs because of the state's financial incapacity to subsidize programs on this scale. In 1933, California voters approved a $170 million water bond issue, but invited federal aid at the same time.

The Legislature followed with an appeal to Congress to authorize federal construction of the Central Valley Project "in accordance with reclamation law."

California thus got a $1½ billion federal project, with two crucial conditions: (1) federal, not state money, paid for the project and (2) reclamation law protected the public against monopoly and speculation.

There were early fears that California's large landholders might be unwilling to accept reclamation benefits if forced to comply with the 160-acre law. They were put to rest by 1905.

"For California," house organ of the "booster" group of the day, carried this statement from a civil engineer:

"Already owners of more than 70 huge tracts of land have signified their willingness to subdivide their lands for the benefit of intending settlers. This shows which way the wind blows and may be taken as an indication that when the government is ready to go ahead our Patriotic landed proprietors will be willing and ready to cooperate."

In confirmation, landowners at Orland in the Sacramento Valley soon accepted a 40-acre limitation to help bring the first federal reclamation project into California.

A generation later, "the wind" had changed. In 1944, hitherto concealed hostility of the landowners surfaced and a wide array of tactics was unveiled to remove the 160-acre provision.

These tactics were products of what Secretary of the Interior Stewart L. Udall now calls "careful planning." One showed the willingness of landowners to shift the heavy financial burdens of reclamation back to the state. Said Business Week of May 13, 1944:

"A proposal, said to have originated among the big landowners of Fresno County . . . for the State of California to take over the Central Valley Project, paying the entire bill . . . This . . . would side-step the 100-acre limitation."

However, outright state purchase of CVP was too costly to be politically possible. Besides: Secretary of the Interior Harold L. Ickes indicated that the federal 160-acre law would be included in any contract of sale to the state.

Thereupon, after more "careful planning," the large land-owners came up with a "compromise" tactic in the early 1950s. The tactic: to impose upon the state as much, but preferably not more, financial burden than might be necessary to free most of the big landowners from Reclamaton Law.

The name of the "compromise" tactic: the State Water Project

SCENE 1. 1958–1960—WASHINGTON

The State Water Project was revealed to Congress in 1958 by California's official spokesmen. In explanation, they said they wanted two things from Congress: first, federal assumption of the burden of a half-billion dollar addition to CVP at San Luis (Westlands); and second, permission for the incipient State Water Project to use "joint" reservoir, canal and pumping facilities free from the 160-acre law.

In Washington, this gave immediate incentive to California spokesmen to maximize the financial burden the State was about to lift from the shoulders of Congress. Later, the incentive would be reversed—that is, to minimize the burden being imposed upon the people at home.

Sen. Thomas H. Kuchel flatly told the Senate on Aug. 15, 1958, that "The State Project will cost the people of California $11 billion when completed." Naturally, this was good news to Congress to hear that the people of California were ready to transfer so heavy a financial burden from the nation's back to their own.

In this spirit, Sen. Arthur V. Watkins of Utah rose "to congratulate the State of California and California's representatives in the Senate, Senator Knowland and Senator Kuchel, on the fact that the great State of California will build the project, and a still greater project which will cost in the neighborhood of $11 billion, and do it on its own."

In Washington, there could be no mistake nor misunderstanding. Less than a year later, Kuchel said the cost would be "nearly $12 billion." Sen. Clair Engle, who had replaced Knowland, stood shoulder to shoulder with Kuchel. The "ultimate cost of the state water plan is presently estimated at $11 billion," said Engle. "The Federal San Luis Unit of the Central Valley Project is but a small part of a tremendous self-help program of the State of California."

Gov. Brown joined in testifying to the weight of the financial load he believed the people of California were prepared to assume. The "state itself," he told Congress on March 16, 1959, "is launching an unprecedented water development program of its own. We know that we cannot and should not depend entirely on the federal government. I hope and expect that the State of California will commit itself to invest more than $11 billion in the next 25 years over and above the Federal program to insure adequate statewide water development."

SCENE 2. 1960–1967—CALIFORNIA

Little news of these public proffers of the lavish generosity of the people of the State trickled back to California from Washington except, perhaps, through the Congressional Record.

When the water bond issue surfaced in November, 1960, the price tag on the State Water Project "compromise" was, not $11 billion, but only $1.75 billion, or less than one-sixth of the figure quoted only the year before by Kuchel, Engle and Brown.

The state needs water, the voters were told, and they approved the plan by a slim margin. Construction started, notably on the Feather River at Oroville Dam, and the state began to shoulder its assigned financial burden.

The first financial returns are now coming in. Gov. Reagan's Water Resources Task Force warned in May: "from the standpoint of short-range financing" the "next three to five years are the critical ones;" that "authorized funding could be exhausted as early as the beginning of 1970," and that "there is a short-term deficiency of up to $300 million, and a long-term deficiency of up to $600 million."

Meanwhile, Reagan attacks as too high the budgets of education and mental health programs. He has yet to level similar attacks against the State Water Project.

Under these financial strains, some division of interest and opinion within the state is appearing. "If a bond issue is indeed sought for bailing out the water plan," stated a recent San Francisco Chronicle editorial, "in all equity it should be a bond issue voted not by the State at large, but by a special Southern California water district, composed of farm lands and communities that will benefit from the transported water, together with the vast acreages of Southern California desert lands that real estate speculators hope to enrich themselves by."

The Governor's Water Resources Task Force says nothing about the principal pressures that burden the state with a State Water Project—land-owning pressures to circumvent the acreage limitation and public power preference policies of Reclamation law. The task force says nothing about the $11 billion cost estimates made by Kuchel, Engle and Brown.

Instead, it favors turning a few units of the State Water Project here and there back to the federal CVP—to save the state some money. But it says

nothing about the obvious financial solution for the state; to bring into California the huge federal interest-free subsidies by returning the entire State Water Project to federal reclamation, with this transfer would come the monopoly and speculation protection of the 160-acre provision.

Ignoring these "gut" issues of finance and policy, the task force offers soothing reassurances that "the State Water Project is eminently sound in engineering and concept." It recognizes Reagan's budget-cutting by appealing for "economies wherever possible, no matter how small and insignificant each one may appear to be."

Reagan's state treasurer, Ivy Baker Priest, immediately jarred the placid mood in which the task force closed its report. The State Water Project, she reported, already is imposing on the people of California an annual interest carrying charge approaching $28 million. This total will rise to about $65 million a year when the balance of the $1.75 billion water bond issue is sold.

But this is only the beginning. The San Francisco Bay Area Rapid Transit and the Southern California Metropolitan Water Districts soon may be obliged, because of the enormously expensive water bonds, to pay higher interest rates on their own fresh bond issues. For much the same reason, each motorist crossing the San Francisco Bay Bridge may be paying an extra dime each time he passes through the toll gate.

EPILOG

The State Water Project, then, is seen as a "compromise" tactic that enables giant landowners to circumvent the federal 160-acre Reclamation Law, keep their vast holdings intact and force California taxpayers to pick up the tab of bringing public water to their lands for their private development purposes. As such, this "compromise" must run a long gauntlet of questions. Among them:

When Kuchel follows task force recommendations and tries in Washington to save the state money by handing back a few water projects units to federal reclamation, will Congress remember his promises that things would work the other way—that the water project would relieve the federal government of a $11 billion liability?

Will Congress accept without question his attempts, already started, to return from the state to the Federal government Black Butte, New Hogan, a $94 million peripheral canal, and "such sums as may be necessary to carry out" construction of the San Felipe division of CVP?

Will Congress note that Kuchel proposes to do this, in S. 1111, with an exemption from the 160-acre law for ground water?

How much additional financial burden is it worth to the people of California (if anything), or indeed to the people of the U.S. (if anything), to help large landowners to circumvent the 160-acre law? To help, say, the Southern Pacific Railroad with 120,000 acres alone in the Westlands Water District?

The public is entitled to "careful planning" in its own interest, and in the open. To whom, among its official spokesmen or appointed task forces, can the people of California turn to learn the financial burdens and policy manipulations surrounding the State Water project?

[From the Bay Guardian, San Francisco, Calif., Aug. 10, 1967]

ARID WESTLANDS—THE WATER SCANDAL

(By Paul Taylor)

Of the countless episodes in the chronicle of the West as "The Plundered Province," there are few to match in effect and extent the giveaway of millions, if not billions, of dollars worth of public water to a small group of landowners in a huge section of the San Joaquin Valley.

The name Westlands may someday be to water what Teapot Dome was to oil.

Westlands is the name of a water district covering a vast 500,000-acre chunk of semi-arid land on the west side of the San Joaquin Valley. The district, stretching from Los Banos to Kettleman City, has only 22,500 persons in an area about two-thirds the size of Rhode Island. Landowners, 240 of them, are huge—for example, the Southern Pacific Railroad owns 120,000 acres or 187 square miles.

For 25 years, landowners here have mined water from their underground reservoirs as miners once mined gold. So exhaustively have their pumps sucked up water that the land surface is sinking about a foot a year and the underground reservoir is badly depleted in quantity and quality. The sinking land jeopardizes the canals, now being built, that are needed to bring water to check further land damage.

All this is changing. Reclamation is coming and with it the inevitable components of urbanization: more intensive farming, new towns and cities, more people, soaring land prices, gargantuan profits to those who own land.

Reclamation means the public subsidy of moving water to private lands. At Westlands, this subsidy amounts to about $1,000 an acre (money the landowners never repay) and an ultimate public investment of $500 million in an area with an assessed valuation of only $26 million.

This subsidy underscores a question that persistently dogs the efforts of Western landowners when they seek to gain Eastern and Southern support to invest federal funds in western reclamation.

The question: Who reaps the benefits? The answer: The private landowners. Here's the background: At the beginning of reclamation in 1902, Congressman George W. Ray of New York warned:

"Behind this scheme, egging it on, encouraging it, (are) the great railroad interests of the West, who own millions of acres of these arid lands, now worthless, and the very moment that we, at the public expense . . . construct these irrigation works and reservoirs, you will find multiplied by 10, and in some instances by 20, the value of now worthless land owned by those railroad companies. . ."

To quiet these fears of water and land monopoly and uncontrolled speculation, westerners inserted a provision in the reclamation bill that no individual landowner can receive water for more than 160 acres. With this in the bill, the West's spokesmen assured Congress that reclamation would bring about the "breaking up of any large land holdings which might exist in the vicinity of the government works."

In simple words, President Theordore Roosevelt explained that "every dollar is spent to build up the small man of the West and prevent the big man, East or West, coming in and monopolizing water and land.

Roscoe Pound, a great dean of the Harvard University Law School, once said that "the life of the law is in its enforcement." The 160-acre law is still in full vigor on the books, but its administrators have reduced it to a dead letter.

For the fact is that about three fourths of the Westlands district—that's 400,000 acres, or 600 square miles, owned by 240 individuals—is legally ineligible to receive the massive benefits flowing from reclamation. And Stewart L. Udall, who carries responsibility for enforcing the law as secretary of the interior, hasn't asked the landowners to comply with the law before they get water.

The project is designed to bring water to the landowners by two routes: (1) by canal on the surface; (2) by raising the water level in the landowners' wells through a combination of percolation from the surface delivery, and by reduction of the overdraft. The fewer the pumpers (to explain the last phrase), the higher the water table for those who continue to pump water from the ground.

The first dodge: the public pays for both surface and ground water improvement, but the excess land owner (who owns more than 160 acres) can escape the law and keep his holdings intact if he can get enough water underground.

The second dodge: Interior sweeps under the rug the 1914 statute requiring the Secretary of Interior to obtain compliance with the law from excess lands owners "before any contract is let or work begun." This destroys enforcement

(To cover this wholesale frustration of the law at Westlands, Interior prefers to ignore the 1914 statute and duck behind a 1926 statute holding that excess lands in non-compliance shall not "receive water." Thus: the phrase "receive water" is narrowly interpreted to mean surface water only; landowners getting ground water are permitted to escape enforcement.

(However, as the department's own solicitor made abundantly clear in a 1961 legal opinion, this amounts to a distinction without a difference and permits "no cover" at all. "As the excess land provisions have evolved from 1902 to the present. . . ," Solicitor Frank J. Barry wrote, "Congress has sought not to weaken but to strengthen; not to open loopholes but to close them; not to encourage speculation but to stop it.")

At Westlands, Udall has chosen to weaken, not to strengthen; to open gaping loopholes, not to close them; to encourage speculation, not to stop it.

From the beginning, giant landowners have shown their clear purpose, in one way or another, to avoid or to circumvent the 160-acre law. The owners have welcomed support from administrators when they were compliant and attacked them when they were dedicated to "the law." This phase, which began to unfold in the 1930's and 1940's, underlies what is before our eyes in the 1960's.

As federal funds began to flow into the Central Valley Project in 1935 and Congress placed the project under reclamation law in 1937, the drive promptly began to remove the 160-acre law, either by congressional or by administrative action.

As early as 1937, so a spokesman for Kern County Land testified to Congress, landowners "were assured by officials of the Bureau of Reclamation that . . . we count with certainty that before the project was completed, the acreage limitations would be removed. Until 1944 this was the general understanding."

Bureau officials, he claimed, gave assurance on the ground, in part, that enforcement of the law would be impossible since much of the project would be devoted to recharging ground waters.

In 1944, Russell Giffen, now head of Westlands Water District, re-emphasized this feeling among excess-land owners, between 1937 and 1944, that the 160-acre law would not be applied to them. "Two members of our committee went to Denver and talked with Mr. Harper of the Bureau," he testified. "It was indicated to them there that the 160-acre provision was not to be taken seriously."

Then, as if to bind a bargain, the large landholders put up $25,000 in matching money for groundwater surveys on the west side of the San Joaquin Valley, apparently at the suggestion of Bureau of Reclamation officials.

When bureau officials later, under orders from Secretary of the Interior Harold L. Ickes, failed to support attacks upon the 160-acre law in Congress, Giffen testified: "It seems to me that the Bureau was completely in bad faith in taking the $25,000, knowing that our district could not accept that."

In Congress, Sen. Sheridan Downey and Rep. Alfred J. Elliott (from the Kern-Tulare-Kings counties district) led the attack on the 160-acre law until the late 1940's. By then, growing public awareness of their special interest efforts ended their political careers.

The Downey-Elliott drive moved in two directions: (1) To seek congressional exemption from the 160-acre law; (2) This failing, to remove from office those Bureau of Reclamation officials who were supporting the law before Congress and trying to enforce it in the Central Valley.

In due course, a Downey "rider" to an annual appropriation bill denied a place on the public payroll to Commissioner of Reclamation Michael W. Straus and Sacramento Regional Director Richard L. Boke—on the pretext they were not "engineers." By this subterfuge, they were driven off the payroll for seven months; only the re-election of President Truman in 1948 made possible their reinstatement.

In 1964, Udall conceded mildly to Congress that over the past 35 years, the Executive Branch (that is, his department) had "on occasion exhibited a degree of concern for the excess-land owner which may be difficult to reconcile with the policies embraced by the excess land laws." Application of the 160-acre law, he added, has been "uneven and uncertain" and "the difference may be the result of sheer accident or careful planning."

Are 30 years of "careful planning" by large landholding interest now paying off? Is official "good faith" in the sixties replacing the "bad faith" charged against high Bureau of Reclamation officials in the 1940's when they supported the 160-acre law?

At Westlands, death comes to the law by calculated circumvention.

[From the Bay Guardian, San Francisco, Calif., Sept. 30, 1969]

LETTERS TO THE EDITOR

You have a very interesting paper, but I do wish you would take another look at the California Water project. It is true that it would have been much cheaper, if under the Federal Reclamation Laws, the Federal Government had built the project.

You should know, however, that there were many, many projects ahead of the California Water project and it probably would have been twenty years before the Oroville Dam was built. I had to make the decision based upon human lives. The floods of 1955 caused 35 or 40 deaths and millions and millions of dollars worth of property damage.

If we hadn't built the dam, there would have been greater damages in 1964, 1965, and 1968.

Northern California needed flood control and recreation projects and they also needed additional water. Southern California needed more water and helped pay for the entire project.

It is true that large land owners would benefit from it, but I saw no way of building the project if we had to fight the 160 acre Federal limitation. As a matter of fact, there are far more benefits to more people in a large corporation that distributes its earnings rather than the acreage limitation which benefits relatively few people. One hundred and sixty acres is not a small farm, because these farms are worth on an average of about $1,000 and a 160 acre farm is worth about $160,000. This is not the small farmer of the reclamation days of 1902.

When I was governor, we ear-marked the tideland funds for education. The Reagan administration, under pressure from the water interests of Southern California, repealed this statute and gave the funds to the water project. This was absolutely wrong and resulted in diminished education for the people of this state.

It is a long story and I don't think you have it all.

EDMUND G. (PAT) BROWN,
Beverly Hills, Calif.

EDITOR'S NOTE

The Guardian supported you for governor in 1966, a position we feel is strengthened with each passing day of Gov. Reagan's administration. But we disagree with you on many critical issues, notably your state water project and its descent toward ecological and financial disaster.

You admit federal construction would have been "much cheaper," but you say the state was obliged to build Oroville Dam to halt repetition of the disastrous floods in 1955. Exactly the opposite view was expressed two years before you became governor by Sen. Kuchel, a man intimately familiar with prospects to get federal appropriations for construction in California. He told Congress in 1956: "I would venture the guess that if the State had not indicted its interest in Oroville, we would have had long before last year's flood a federal dam at Oroville."

Specifically, what flood control and recreation benefits does state construction bring to Northern California that would not come from cheaper federal construction? (By the way, did you tell the people as you told Congress in 1959 that Californians will put up $11 billion to build the State project?)

Already the financial pinch is on, and only $2.8 billion has been spent. True, you did not slash education and mental health as Gov. Reagan is doing, but you inaugurated the water project and the financial pressure on him to divert funds to salvage it.

Your preference for large corporations to distribute "more benefits to more people," instead of giving them direct benefits of owning their own farms under acreage limitation, is curiously reminiscent of Mellon's "trickle down" theory.

How much really trickles down? Compare the quality of life in communites on the east side of the San Joaquin Valley with those on the west side supported by large corporate farming and you will have the answer in five minutes: not much trickles down.

In fact, as Robert Jones' grape strike story makes plain, the corporate growers have put together a massive public relations attack to break the grape boycott and keep Chavez's farm workers from forming a strong union and getting their fair share of these corporate benefits and earnings.

We recommend your forth-right statement that 160 acres "is not a small farm." It exposes properly the current propaganda by enemies of acreage limitation who seek to cajole the uninformed city folk into thinking 160 acres is too small to afford a decent living.

When you were attorney general, you courageously reversed your predecessor and carried the fight to preserve acreage limitation to an 8–0 victory in the U.S. Supreme Court. You then were fulfilling the Democratic Party Platform.

Query: After you became governor, why did you switch and scuttle this acreage limitation on the water project that, as you say, benefits "large land owners" and costs California so much more than federal construction?

Further query: What kind of water project is it, anyway, that brings Rep. Henry Reuss' Conservation and Natural Resources Committee to San Francisco to try to protect the North from what the Chronicle calls the "Water Raiders" of the state project?

[From the Bay Guardian, San Francisco, Calif., Aug. 10, 1967]

CIRCUMSPECTING FOR WATER

"I grant you," the late Sen. Clair Engle once said, "you start kicking the 160-acre limitation and it is like inspecting the rear end of a mule. You want to do it from a safe distance because you might get kicked through the side of a barn.

"But it can be done with circumspection and I hope we can observe circumspection."

This, ladies and gentlemen, is the Engle formula for California's big landowners, and their powerful political allies, to circumvent the 160-acre provision that prohibits land and water monopoly by limiting the use of federally developed water to no more than 160 acres per owner. That is to say, by circumspection.

Keep this in mind because our latest circumspectors—Sen. Murphy, Gov. Reagan and Reagan's advisory committee on water—are now at full gallop across the land.

Their ploy: to propose federal legislation, through Murphy, to raise the 160-acre limitation to 640 acres (doubtless a tactic to get 1,280 acres on the old man and wife formula.)

The background: President Theodore Roosevelt, a great conservationist, put through the 160-acre limitation as a conservation measure that would prohibit land and water monopoly, conserve the land and open up farming opportunities. The big landowners—Southern Pacific Railroad, Kern County Land and Co.—have for decades fought to abolish the ceiling and open the floodgates to the enormous development profits of subsidized water.

The 640 formula is their latest maneuver. It has surfaced from Reagan's advisory committee on water that is heavily freighted with the same land-holding interests (chairman: Burnham Enerson, water attorney for Kern County Land) who have led the limitation fight. There was little doubt, as the Guardian pointed out when the makeup of Reagan's committee was announced, what it would recommend.

The public subsidy now amounts of $1,000 or an acre, money that is never repaid. This is $160,000 for each man under Reclamation Law. Why should it now be raised to $640,000, or $1,280,000 for man and wife, under the new Murphy/Reagan formula? Isn't $160,000 enough in these days when we can't rustle up enough money to pay for the sick, the aged, the mentally ill, the college student?

Last September, President Johnson's advisory committee on rural poverty made two important points: (1) that "no more public money" should be invested in developing privately owned farmland; (2) that the Department of Interior should enforce the 160-acre limitation.

We agree. The Murphy/Reagan business should be kicked through the side of the barn.

[From California Agriculture, March 1970]

CORPORATE FARMING IN CALIFORNIA

(By C. V. Moore and J. H. Snyder)

Corporate farms tend to be larger, both in terms of acres of land operated and gross farm sales. California's farming corporations tend to concentrate in the intensive high-risk-capital enterprises. The fate of incorporation appears to have slowed considerably in the past three years. In the future, it is likely that existing corporations will expand the size of their present operations, along with some consolidation of smaller corporations through purchase by, or merger with, large diversified corporations. Also, as farms achieve a larger size, they will tend to adopt the corporate form of business organization.

There has been a growing concern over the expansion of the corporate form of business organization and interest in what its long-term effects on California's agriculture will be. This report summarizes a recent survey of California farming corporations.

In the spring of 1969, a mail-out questionnaire was sent to 2,506 firms thought to be incorporated and engaged in agricultural operations. A total of 1,915 respondents returned completed questionnaires for a 76 per cent response. Only 1,233 of these schedules qualified for further analysis, the remaining respondents had no agricultural operations in California, were inactive corporations, or were not incorporated. A nonrespondent bias check was made through personal interviews to determine if nonrespondents were significantly different than the earlier mail-in respondents. Nonrespondents corporations were found to be significantly larger operations than the original respondents and all data presented here and in accompanying tables have been adjusted to reflect this bias.

Corporate farms in California operate about 5,638,000 acres of land or an average of slightly over 3,600 acres per unit, (table 1). The average acreage per farm was influenced by who controls the corporation. Where the controlling stock was owned by an individual, corporate farms were smaller (about 1,700 acres) while farms controlled by stockholder groups were larger (almost 8,500 acres) per unit. Extremely large corporate farms influenced the average acreage upward. For example, although the average corporate farm contained over 3,600 acres, 53 per cent of the farms in the survey contained less than 500 acres.

Many corporations with agricultural operations engage in outside business interests; some of which are completely unrelated to agriculture. For all farming corporations in California, 18 per cent had outside business interests, but only 9 per cent had business interests that were completely unrelated to agriculture or agribusiness.

NOT NEW

Farm incorporation is not a new phenomenon in California agriculture. Almost half of the active corporate farms at the time of the survey were incorporated prior to 1960 and a few of these were incorporated prior to 1900. An important impetus to incorporation came in 1958 when federal tax laws were amended to permit certain closely held corporations to be taxed as partnerships. The impact of this change in the tax laws was felt primarily in the first half of the 1960's. The rate of new incorporation has slowed considerably since 1966.

Commensurate with their larger acreage, corporate farms have high gross sales of farm products per farm. Twenty-seven per cent of all corporate farms had gross sales of farm products of $500,000 or more in 1964. Corporate farms controlled by other corporations had higher gross sales than those controlled by individuals and families. Gross sales of farm products of a half million dollars or more were reported by 25 per cent of the corporate farms controlled by individuals as compared with 39 per cent reported by corporations controlled by stockholder groups in 1964.

SIZE DISPARITY

The disparity between the size of corporate farms and all commercial farms in California is best shown by the data in table 2. The U.S. Census of Agriculture for 1964 reports 57,289 commercial farms in California. About 3,000 of these contained 2,000 or more acres of land. In this larger size group, 365 or 12.1 per cent were incorporated whereas corporate farms made up only 1.2 per cent of the smaller size group—that is, those farms under 100 acres in size. The 45 largest corporate farms operated over 3 million acres of land or 60 per cent of all the land operated by corporate farms. Slightly more than 25 per cent of the smallest corporate farms operated only 0.3 per cent of all the farmland operated by corporations. These smaller units include feedlots, poultry farms, and greenhouses which use land intensively.

Activities of corporate crop and fruit farms are concentrated in the high-value-capital intensive commodities. Table 3 compares data from the corporate farm survey to data from USDA Agricultural Statistics, 1968. Over 60 per cent of California's lettuce acreage and 89 per cent of the melon acreage was in corporate farms and slightly over 39 per cent of the cotton acreage was owned by corporations. Of corporate fruit and nut farms, citrus had the largest acreage (almost 30 per cent). Other tree fruit such as apples, peaches, and pears were grown on smaller traditional farms owned by individuals or partnerships; less than 17 per cent under corporation management.

LIVESTOCK

Corporations were also important in California's livestock industry (see table 4). Over 46 per cent of the fed cattle sold were fed by corporations whereas only about 12 per cent of the beef cows were maintained by corporate farms. This, as in the case of field crops, indicated greater corporate activity in the intensive high-risk-capital enterprises. The major exception was the sheep industry. The poultry industry, especially broilers and layers, involves a high degree of concentration of capital, reflecting the movement toward vertical integration in this industry.

TABLE 1. SELECTED CHARACTERISTICS OF CALIFORNIA CORPORATIONS HAVING AGRICULTURAL OPERATIONS BY TYPE OF CORPORATION, 1969 SURVEY

Item	Type of corporation			
	Individual	Family	Other	All
Number reported	377	875	285	[1] 1,537
Total acres (1,000 acres)	637	2,558	2,417	5,612
Average acres per unit	1,690	2,924	8,481	3,652
Percent distribution by acres:				
Less than 100	29	28	19	26
100 to 499	30	25	31	27
500 to 999	14	13	19	14
1,000 to 1,999	8	11	15	11
2,000 to 4,999	12	13	5	12
5,000 or more	7	10	11	10
Total	100	100	100	100
Business interest:				
Farming only	83	84	76	82
Agribusiness [2]	5	6	11	7
Non-agribusiness [3]	11	8	12	9
Combination	1	2	1	2
Total	100	100	100	100
Year began operation as corporation:				
Before 1960	49	50	43	49
1960 to 66	45	46	51	47
1967 to 68	6	4	6	4
Total	100	100	100	100
Gross sales of farm products 1967:				
Less than 20,000	12	7	9	9
20,000 to 39,999	8	8	6	8
40,000 to 99,999	17	13	17	18
100 000 to 199,999	17	20	10	18
200,000 to 499,999	21	21	19	20
500,000 or more	25	26	39	27
Total	100	100	100	100

[1] Total estimated number including nonrespondents interviewed, 1,673 operating 6,109,000 acres of land.

[2] Farming plus manufacture or sales of farm supplies, or marketing, processing of agricultural products.

[3] Business activities unrelated to farm inputs or marketing of farm products.

TABLE 2. CORPORATE AND COMMERCIAL FARMS, BY FARM SIZE, CALIFORNIA, 1969

Acres	Number of corporate farms	Percent	Cumulative percent	Acres in corporate farms[1]	Cumulative percent	Number of commercial farms[2]	Percent corporations
Under 100	428	25.6	25.6	18,000	0.3	34,494	1.2
100 to 219	226	13.5	39.1	37,000	.6	7,773	2.9
220 to 499	227	13.6	52.7	79,000	2.2	5,878	3.9
500 to 999	241	14.4	17.1	171,000	5.0	3,692	6.5
1,000 to 1,999	186	11.1	78.2	263,000	9.3	2,437	7.6
2,000 to 4,999	194	11.6	89.8	617,000	19.4	3,015	12.2
5,000 to 9,999	74	4.4	94.2	483,000	22.3		
10,000 to 24,999	52	3.1	97.3	727,000	39.2		
25,000 or more	45	2.7	100.0	3,714,000	100.0		
Total	1,673	100.0		6,109,000		57,289	2.9

[1] Estimated.
[2] Census of Agriculture, 1964.

TABLE 3. ACREAGE OF MAJOR CROPS OF CORPORATE AND COMMERCIAL FARMS, CALIFORNIA, 1968

Crop	Farming corporations (acres)	All farms (acres)	Percent corporate
Corn	66,000	185,000	35.6
Other grains	662,000	1,872,000	35.3
Hay	223,000	1,864,000	11.9
Potatoes	30,000	92,100	32.5
Sugar beets	75,000	254,000	29.5
Rice	83,000	432,000	19.2
Dry beans and peas	8,000	214,000	3.7
Apples	2,000	[1] 26,361	7.5
Peaches	19,000	[1] 113,248	16.7
Pears	6,000	[1] 45,402	13.2
Strawberries	2,000	8,600	23.2
Fruits, n.e.s.	60,000		NA
Cotton	264,000	687,400	38.4
Grapes	91,000	[1] 500,576	18.1
Citrus	58,000	[1] 193,498	29.9
Tomatoes	59,000	243,800	24.2
Lettuce	64,000	102,600	62.3
Melons	64,000	71,700	89.2
Green peas	2,000	14,100	14.1
Carrots	9,000	26,000	34.6
Green beans	6,000	33,000	18.1
Vegetables, n.e.s.	107,000		NA
Other crops	157,000		NA
Greenhouse	7,000		NA

[1] Source: Agricultural Statistics, USDA, 1969. All other data obtained from 1964 Census of Agriculture.
n.e.s.—Not elsewhere specified, including specific fruits and vegetables.
NA—Not available.

TABLE 4. NUMBER OF LIVESTOCK, CORPORATE, AND COMMERCIAL FARMS, BY TYPE OF LIVESTOCK, CALIFORNIA 1968[1]

Livestock	Farming corporations (number)	All farms (number)	Percent corporate
Fed cattle sold	1,378,000	2,965,000	46.4
Beef cows calved	119,000	995,000	11.9
Yearling cattle sold	99,000		NA
Cows milked	40,000	857,000	4.6
Market hogs sold	29,000	230,000	12.6
Sows forrowed	687	228,000	0
Broilers sold (1,000)	8,000	23,090	34.6
Laying hens (1,000)	14,000	38,330	36.4
Turkeys sold (1,000)	2,000	14,337	13.9
Sheep sold	87,000	167,000	52.0

[1] Source: Agricultural Statistics, USDA, 1969.

Exposure of plants to ethylene gas has brought about various responses, including flower induction, change in direction of growth, accelerated fruit ripening, leaf and fruit abscission, and hastened seed germination. Research in 1967 revealed that fig fruits were stimulated to grow rapidly and mature early when exposed to an atmosphere containing 5 ppm of ethylene. The cost and inconvenience of confining a gas such as ethylene to fig trees makes impractical its application to induce early fruit maturity. On the other hand, application of a spray that produces effects similar to those of ethylene would be of great value to the fig grower. When applied as a water spray, the proprietary compound Ethrel (2-chloroethylphosphonic acid) penetrates the leaves and other plant organs and then decomposes to form ethylene, chloride, and phosphate. The results of experimentation during 1968 and 1969, described in this report, show clearly that the effects of Ethrel on fig fruit growth and maturation are like those of ethylene.

[From California Farmer, Sept. 18, 1971]

IS THIS A NEW ERA IN CALIFORNIA AGRICULTURE?

(By Hartt Porteous)

Mountains form a backdrop for the new type of farming in Tulare County. There are citrus trees in the foreground, an experimental orchard in middle distance and developed orchards in the background. This may become California's garden of Eden.

What happens when irrigation water is introduced into an arid area? Does the 160 acre limitation help or hinder? What does farming become under imposed conditions?

Southern Tulare County may not give a final answer, but it is old enough so there is a pattern of farming emerging.

A short decade ago water came into the southeastern part of Tulare County. Along with it came the 160 acre limitation. Today those once bald and barren rolling hills are sprouting white and green sticks marking new trees. In some cases, great flowing verdant patches are marked here and there with high air-conditioning propellers.

There are still patches of bare land where cattle roam, but those, for the most part, are not attached to the flow of water from reclamation projects. Does this water solve problems or create a surplus?

Leslie Taylor, of Taylor Farm Management, Inc. may have some answers because he has been on the land before and after the water came. He appears to have solved financing, which is perhaps the most vexing of today's agricultural problems, and he has pushed other perplexities out of the way on his 125 acres near Terra Bella.

Short term financing has become almost routine. Methods to make agriculture profitable are working. Economies of big production are in evidence. Also, the economies of the small producer are there. Farm planning has been brought to engineering perfection. Production costs have been held if not actually reduced.

In short, farming in southeast Tulare County has taken on a new glamor under the 160 acre limitation rule, or so it would seem. This has been done even in the face of the accusation that the limitation was throttling, rather than helping, agriculture.

The limitation rule actually appears to be solving long term financing problems for many owners. This is much the same as the financing of public corporations. Public corporations are able to carry their debt without ever repaying it, an advantage not seen in agriculture up to now.

Les Taylor owns only 125 acres of the land he farms. His wife owns another 160 acres, and his son owns 15 acres. He sees little advantage to getting bigger. He manages over 1000 acres and in the process is able to affect many of the economies which larger acreages can do.

Les Taylor has spent many years acquiring the knowledge, skills, and ability which go to make up good farm management. He spent 33 years in two companies dealing with management of land. It was during this time that he started buying the nucleus of his present property. Finally buying the land to which he had taken a liking, he began developing it. Other people asked him to develop land for them, some from the very beginning.

An example of the knowledge and skill necessary in today's agriculture is the 120 acres Taylor is *currently* developing. Through experience, he has found the right temperature zones for many of the tree crops which will grow there. His engineering skill allowed him to lay out the land for elevation, irrigation, soil and all the other considerations one must take into account in agriculture. He has run contours on the highest land and laid it out for avocadoes (14-11's, Zutanos and Bacons) with lemons at the next lower elevation, then Mineolas, and at the lower and colder elevations, Autumn Rosa plums.

He has taken annual rainfall and runoff into consideration and developed the natural waterways, so the land won't be subject to erosion and so a maximum of wildlife can enhance living in the area. (The land is too rolling to be leveled.)

As part of the development, he has created a natural lake which not only contains game fish, but also acts as a reservoir for sprinkler systems which irrigate the trees.

Taylor has an Accredited Farm Manager (AFM) degree. He was president of the California Society of Farm Managers and Rural Appraisers in 1970. But he would likely have had his skills in the bowels of a large corporation for the rest of his life were it not for the new water.

To keep owners informed, Taylor has instituted a cost accounting system which details the same type of information (and much more) that a publicly held corporation only passes on lightly in a quarterly report. A difference here is that a computer can give immediate reports. So owners and financial institutions may have money matters under immediate control and judgment. A computer also has advantages in farm record keeping.

At the same time, Taylor owns and operates all the machinery needed for this large acreage. He has such close contact with the operation, repair, and maintenance of machinery that he is able to cut costs far below that of a larger corporation. A single shop takes care of all equipment and allows all of an owner's acreage to be planted with no space taken for buildings or yards.

Some owners have picked a homesite for later use with enjoyable tree types close at hand.

Ray Cawelti is Les Taylor's superintendent of ranches. He is a skilled mechanic and green thumb artist, as well as a beginning owner of 20 acres of producing trees. This, too, may be an advantage of many ownerships and co-ship hopes and ambitions which large acreage owners deny their workers.

The quality of living, too, in this new water area is good and has become operative farm management. Capable persons, such as Cawelti, can have owner-available to many people. All houses and mobile homes are modern and well kept in keeping with this new found type of agriculture.

In this operation, efficiency usually attributed to large acreages can be met and perhaps surpassed for an owner of less than 160 acres, while the quality of country living is increased.

The barren land of southeast Tulare County is fast becoming a profitable garden with high quality country living.

Leslie Taylor, of Taylor Farm Management, Inc., and many other farm managers like him, may be leading California agriculture into a new era of well being, which older irrigated areas may find a pattern for imitation.

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by Charles L. Smith, June 1966

Note to Readers:

Congress passed the National Reclamation Act in 1902 to help water development in the West by federal subsidies. These subsidies to privately-owned lands are now running from $1,000 to $2,000 an acre, according to studies by the U.S. Bureau of the Budget.

In order to prevent monopoly by the few of water, of subsidies, and of unearned increment, Congress included provisions in the National Reclamation Act to limit the benefits any individual may legally receive. These protections against monopoly of the government-supplied water are sometimes called "excess land law," "acreage limitation," or "160-acre law."

The U.S. Supreme Court, in 1958, described the law's purpose in these words: "The limitation insures that this enormous expenditure will not go in disproportionate share to a few individuals with large land holdings. Moreover, it prevents the use of the federal reclamation service for speculative purposes." 357 U.S. 275, 297 (1958)

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Office of the Solicitor General
Washington, D.C. 20530

June 1, 1971

AIR MAIL

Mrs. Stephen L. Stover
341 North 15th Street
Manhattan, Kansas 66502.

Dear Mrs. Stover,

Your letter of May 28 has reached me this morning. Until it came, I had not seen the article in the New Republic. You are the first one who has brought it to my attention. I have now located a copy of the issue of the New Republic for May 8, 1971, and have read the article with interest.

As so often happens in these matters, it is a one sided presentation of a rather complicated situation. You would not know from the article, for example, that the project for the irrigation of the Imperial Valley was started about 1900 and was virtually completed by 1920, without any participation by the federal government. It was an expensive project, and it was natural that there were large land holdings there.

When the Imperial Valley was developed, the water from the Colorado River was brought in by a canal which ran for a number of miles through Mexico. This led to a number of problems. About 1930, in connection with the development of Boulder Dam, a new All-American Canal was built. This was entirely in the United States, and was undoubtedly an advantage for the Valley. However, the All-American Canal did not result in the reclamation of a single acre of desert land. After the All-American Canal was completed, there was no more land in cultivation in the Imperial Valley than there had been for many years before.

It is true that there is a provision in the reclamation laws which provides that when land is reclaimed through a federal project, land holdings cannot exceed 160 acres. However, as I have indicated, no land was reclaimed by the construction of the All-American Canal. It is, thus, a real question as to whether the acreage limitation in the reclamation laws is applicable to the Imperial Valley.

This question was considered and determined by the Secretary of the Interior, Ray Lyman Wilbur (previously President of Stanford University) in 1933, now more than 38 years ago. That determination was acted on, and relied on, for many years, and no question was seriously raised about it until about 30 years after Secretary Wilbur's decision.

Recently, the issue was submitted to a court, and the court decided that the acreage limitation does not apply to Imperial Valley. It then became my responsibility to decide whether an appeal should be taken from that decision. I considered the matter carefully and thoroughly, and over a considerable period of time. As a result of my consideration, I became convinced that (a) we would not win the case in the court of appeals, and (b) we should not win it. In this situation, I came to the conclusion that it was my duty as a responsible officer of the government not to authorize an appeal.

In making that decision, I issued a statement saying that my determination was applicable to the Imperial Valley only, since that was the only place that had this sort of a history. The statement by Peter Barnes in his article to the contrary is entirely without foundation. As I have indicated, my determination with respect to the Imperial Valley (and Secretary Wilbur's determination 38 years ago) was based on the fact that the Imperial Valley was fully developed long before any federal money was spent to build the All-American Canal. The federal project did not reclaim any land in the Imperial

Valley. Thus, the determination with respect to the Imperial Valley has no application to other projects where there was actual reclamation of land as a result of the project.

Very truly yours,

Erwin N. Griswold
Erwin N. Griswold
Solicitor General

Department of Justice

FOR IMMEDIATE RELEASE
FRIDAY, APRIL 9, 1971

Solicitor General Erwin N. Griswold announced today that the Department of Justice will not appeal a U.S. District Court decision holding that land limitation provisions of reclamation law do not apply to privately owned lands in the Imperial Valley irrigation district of southern California.

Judge Howard B. Turrentine of San Diego issued the ruling on January 5, 1971, in the Justice Department's 1967 suit against the Imperial Irrigation District.

The deadline for appealing the decision to the U.S. Court of Appeals for the Ninth Circuit was tomorrow. The Department of the Interior had recommended against an appeal.

In making his determination, Solicitor General Griswold stressed that his decision related only to the situation in the Imperial Valley.

"The decision does not in any way affect the Government's position with respect to reclamation projects in other areas where different facts are involved," he said.

At the request of the Interior Department, the Justice Department had filed the civil suit seeking a declaratory judgment that the 160-acre limitation applied to private land holdings in the Imperial Irrigation District.

[From testimony by Paul S. Taylor, hearing before House Subcommittee on Irrigation and Reclamation of Interior and Insular Affairs Committee, 89th Cong., 1st sess., on H.R. 4671 and similar bills, p. 931]

Official and unofficial studies, before and since, support the Congressman's emphatic conclusion of fact. For example, Pendleton, history of labor in Arizona irrigated agriculture, unpublished doctoral dissertations, Berkeley, 1950; Klaus G. Loewald, hearings before Senate Irrigation and Reclamation Subcommittee, 85th Congress, 2d session, on S. 1425, S. 2541, S. 3448, pp. 230–238; U.S. Bureau of Reclamation, landownership survey on Federal reclamation projects, 1946, p. 16. Congressman Jackson's gloomy prophecy stands fulfilled even today; if the acreage held in excess has diminished, the subdivision occurred without benefit of the controls that Congress wrote into reclamation law to limit private speculation in the interest of settlers.

Nonenforcement of the excess land laws for a half century in Arizona is matched on the California side of the Lower Colorado Basin for a generation. Secretary of the Interior Stewart L. Udall showed a courageous awareness of longstanding nonenforcement in Imperial Valley when he announced on the last day of 1964 that he intends to bring nonenforcement there to an end by divestiture of excess holdings. But the Secreatry has made no similar promise to end nonenforcement either in Arizona or on southern California lands watered under the Boulder Canyon Act other than in Imperial and Coachella Valleys. No sooner was the Secretary's decision to end nonenforcement in Imperial Valley announced, than the Imperial Irrigation District News, summarizing an opinion of its chief counsel, Reginald L. Knox, pointed out that:

"If the opinion of Solicitor Frank Barry is correct, it also applies to all areas reviewing water from the Colorado River, including land in the Metropolitan Water District which supplies water to some extremely large holdings on the coast. According to Knox, there has never been any reference to that area, but if the opinion is correct, it would necessarily apply there also" (February 1965, vol. XXVI, No. 9, p. 1).

Nonenforcement, its roots deep in the past, has received added impetus during recent years. Its temper probably never was described more clearly than by Congressman Clair Engle, of California, speaking to the House in 1955:

"I grant you, you start kicking the 160-acre limitation and it is like inspecting the rear end of a mule. You want to do it from a safe distance because you might get kicked through the side of the barn. But it can be done with circumspection, and I hope we can observe circumspection" (1955 hearings before House Subcommittee on Irrigation and Reclamation, on H.R. 104, H.R. 384, and H.R. 3817, 84th Cong., 1st sess., p. 70).

The devices reflecting "circumspection" are numerous; at least one of them, the "Engle formula" for repayment—substituting small money payments for policy—incorporated in the Small Reclamation Projects Act, received congressional approval under circumstances leaving a trail of expressed dissatisfaction across the years and on the Senate floor (102 Congressional Record 13650; 103 Congressional Record 6737, daily edition May 23, 1957). Without congressional approval, unsympathetic administrators frustrate the law by substituting "interpretations" of the law that thwart its purposes, in the place of interpretations that would achieve them. Two examples may be cited here that I have discussed more fully elsewhere:

(1) Substitution of a "quantity of water" measure for the statutory prohibition that no ineligible lands: i.e., exceeding 160 acres per individual, shall receive water; and

(2) Creating a distinction as to applicability of the excess land laws, between water reaching project lands via surface delivery, and water reaching them underground, a distinction not found in the statute nor logically consistent with its justification for public expenditures for private benefit. See Taylor, "Excess Land Law: Calculated Circumvention" (52 California Law Review 978, 980, 990, 1010).

Of course, officials charged with responsibility for administering reclamation law know and proclaim its purposes. For example, Commissioner of Reclamation Floyd E. Dominy recently said: "I am proud that our basic principles remain essentially unchanged in concept. This program is reimbursable * * * and will repay the Federal loan that finances it. We are today, as we always have been, fully committed to the conviction that the family farm is a national asset of fundamental importance." (Address before Mississippi Valley Association at New Orleans, Feb. 3, 1961; USDI release, Feb. 3, 1961.)

Solicitor of Interior Frank J. Barry, in his opinion M-36634 (Dec. 26, 1961) spoke of—

"* * * the resolve of the Congress, as a matter of deliberate policy, to prescribe by statute measures aimed specifically at the early breakup of preexisting * * *.

September 1, 1971

Hon. Erwin N. Griswold
Solicitor General of the United States
United States Dept. of Justice
Washington, D.C. 20530

Dear General Griswold:

Someone sent me a copy of a letter that went out under your signature, dated June 1, 1971, to Mrs. Stephen L. St[illegible]ver of Manhatten, Kansas. The letter inquired about the position of the Justice Department in the excess land case involving the Imperial Valley in California.

As one who has written about the Reclamation Law, I was surprised to see in your letter the following:

> ". . . there is a provision in the reclamation laws which provide that when land is reclaimed through a federal project, land holdings cannot exceed 160 acres. . . .no land was reclaimed by the construction of the All-American Canal."

Occasionally one recalls the warnings he received in law school, among them the danger in paraphrasing statutory language. My recollection is that the excess land provision of the Reclamation Law, 43 U.S.C. Section 431, says:

> "no right to the use of water for land in private ownership shall be sold for a tract exceeding 160 acres to any one land owner."

I recall no general provision in the law that limits the excess land law to land "reclaimed through a federal project," and if you examine the legislative history of the statute, you will recall that Representative Newlands, the sponsor of the Act, took no such view. 36 Cong. Rec. 6734 (1902). Of course a great many reclamation projects involve the supply of supplementary water to land already in cultivation. To the best of my knowledge it has never been thought that this fact exempted the project from the provision of the excess land law.

I recognize that the Imperial Valley case was a complex one; but I think Mrs. Stover was entitled to a more accurate explanation.

Very truly yours,

Joseph L. Sax
Professor of Law

JLS/kh

September 21, 1971

Erwin N. Griswold
Solicitor General
Office of the Solicitor General
Washington, D.C. 20530

Dear General Griswold:

I appreciate very much that you took the time to reply to my letter of September 1, commenting on the Imperial Irrigation District case.

I know it would be an imposition to engage you in further correspondence, but I hope you will permit me to make an observation or two about the future.

As you know, for many years the excess land law was little enforced, and the residency requirement of the reclamation law has been wholly ignored. Those concerned about reclamation law were therefore understandably pleased when the Interior and Justice Departments decided to go forward with the IID case. I recognize the complexity of the issues there, but I hope that the Department of Justice will make a concerted effort to enforce the excess land law.

Though bills are annually introduced in Congress calling for repeal of the excess land provisions as an anachronism, this is certainly not the case. A great many agricultural workers, particularly in California, would welcome the opportunity to become farm owners, if only that opportunity to acquire fertile farm lands were made under reasonable circumstances. Indeed it is my own view that many of the current farm labor problems would be best resolved by encouraging the creation of an owner class among family farmers.

At the present time non-enforcement or limited enforcement of the excess land and residential laws stand as an obstacle to this development. Once the laws are enforced, of course, steps will have to be taken to assure credit for the purchase of farm lands, so the job is a complex and extended one; but enforcement of the law is a needed first step.

It may seem romantic today to suggest that the very motive that lay behind enactment of the reclamation law in 1902 is still a sensible policy; but I am sure that as you look into the question, you will find many very well informed people who think that this is precisely the case.

It is often said that the excess land law cannot work because small farms are unoconomic. Even to the extent that this is true, it does not speak to the problem of ownership, but only to management practices. If it is economically necessary to operate and market farm products on a large scale, it is perfectly possible to do this by cooperative arrangements among a number of owners of modest sized family farms.

I make these comments only because it is so widely believed in Washington that no significant public policy could be advanced by vigorous enforcement of the reclamation law. Perhaps this view affected your own judgment about the IID case. If so, I hope you will explore the question further as opportunities arise.

Cordially yours,

Joseph L. Sax
Professor of Law

JLS/kh

cc: Ben Yellen, M.D.
Mrs. Stephen L. Stover
Peter Barnes ✓

P.S. I am very glad to follow your suggestion about distribution of the letter you sent me on September 16. I am, however, sending copies of this letter to several interested parties.

Mechanized Agriculture and Social Welfare: The Case of the Tomato Harvester*

Andrew Schmitz and David Seckler

An integrated public-private approach to mechanical harvesting of tomatoes for canning has sharply reduced producers' labor requirements. Gross social returns to aggregate research and development expenditures are in the vicinity of 1,000 percent. Even if displaced labor had been compensated for wage loss, net social returns are still highly favorable. Since tomato pickers were unorganized, no compensation was demanded or paid. The analysis indicates a need for policies designed to distribute the benefits and costs of technological change more equitably. Social scientists could properly be concerned with developing institutional means of achieving this goal.

At the beginning of the industrial revolution in the 19th century gangs of workmen known as the Luddites roamed England, systematically destroying machinery. To their compatriots in the Netherlands we owe the word "sabotage," after "sabot," the heavy wooden shoe that Dutch workmen threw into the grinding gears of the new technology.

The other side of the coin is well illustrated by the lament of John M. Horner, one of the inventors of the wheat combine.[1] Writing to his friend, Colonel Warren, editor of the *California Farmer*, in July 1869 [11, p. 22], Horner said,

> . . . we were brought more particularly to reflect upon our position by the burning of one of our machines. . . . We ask ourselves: Have we injured anyone so that personal vengeance is pursuing us, and this burning was done to gratify a revengeful feeling? No. We have had no misunderstanding with anyone, in fact, not an enemy in the world, a conscience void of offence to all men. We entered that neighborhood to perform honest labors, and harvested [1,600] acres in a good workmanlike manner to the entire satisfaction of our employers—so much so that most of them wanted us to consent to harvest their next crops.

Colonel Warren promptly responded with an editorial in his paper [11, p. 23]:

> Such acts as the one named upon a man like Mr. Horner because he had invented a labor-saving machine should arouse the spirit of the lion among all good men and they should unite and hunt up the offenders and make them feel the heaviest penalties of the law for damages and then be driven from every civilized community.

The rhetoric of this ancient conflict has changed, but not its substance. "Technological displacement"—as it is now euphemistically called—remains the source of some of our greatest social problems. This is particularly true in agriculture. We point with justifiable pride to the fact that now only a small percentage of the total population produces our food needs. But we tend to forget the painful process of adjustment that accompanied the transition from a rural to an urban society. We have forgotten that for many people the transition was involuntary; that many people have been forced off the farm only into an economic and social limbo in rural towns and urban ghettos.

The overall purpose of this paper is to provide a means whereby the broad social costs of technological innovation can be mapped into the framework of economic analysis. It focuses specifically on a recent technological change affecting agriculture—the mechanical tomato harvester.

Development of the Tomato Harvester

The history of the development of the tomato harvester is a subject of interest in itself. It is an outstanding instance of the parallel development of innovations dovetailing into a viable system. As Rasmussen [26, pp. 532–533] states,

> The invention of the mechanical tomato harvester contrasted decidedly with the development of the cotton picker. The tomato harvester resulted from the "system approach." A team made up of an engineering group and a

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* Giannini Foundation Paper No. 310. We appreciate the data made available for this study by various departments at the University of California, Davis, and the University of Michigan. Ernie Blackwelder, Clarence Kelly, Philip Parsons, Gordon Rowe, Loy Sammet, and Ron Schuler also provided valuable information. We thank Roy Born for computational assistance and Bill Martin and Loren Ihnen for critical comments.

[1] We are indebted to Paul Barkley for this reference.

Andrew Schmitz *is assistant professor of agricultural economics and* David Seckler *is acting associate professor of agricultural economics at the University of California, Berkeley.*

> horticultural group, with advice and assistance from agronomists and irrigation specialists, developed suitable plants and an efficient harvester at the same time. The necessary changes in planting, cultivation, and irrigating were developed concurrently. . . .

The systems approach was also followed in the development phase of the harvester. Manufacturers, scientists, and extension personnel worked closely with farmers, first in growing the new tomato varieties, then in getting the tomatoes harvested. Processors subsidized the first crops by lowering their purchasing standards on the new tomatoes and by adjusting their production techniques to accommodate the changed inputs. In the opinion of E. Blackwelder of the Blackwelder Manufacturing Company, which produced one of the first harvesters, it would have been virtually impossible to develop the harvester without an industry-wide integration of efforts. Thus, the harvester represents a social as well as a scientific and engineering success. Through coordinated efforts on many fronts, the industry was able to achieve results not economically available to any individual member.

The first 25 harvesters were used in California in 1961. By 1964, 75 were in use; a year later, 250. The number increased to 1,000 in 1967 [16], when approximately 80 percent of the California acreage was harvested by machines. However, in other tomato-producing states the harvester was adopted after this period.

Purpose and Framework of Analysis

Like the cotton harvester, the mechanical tomato harvester has created important production economies but has also undermined the livelihood of numerous agricultural laborers. In this paper we attempt to appraise both the heightened production efficiency and its effect on the welfare of workers. The pioneering work of Schultz [31] and Griliches [8] is carried one step further—into an appraisal of important social costs as well as social benefits.

Both gross and net social rates of return to the tomato harvester are computed; the difference is the wage loss of the displaced workers. To compute the gross social rate of return, we employ as a basis the framework used by Griliches [8] and Peterson [24] who estimated, respectively, the benefit to society from the introduction of hybrid corn and from poultry research.

Using the concepts of consumer's and producer's surplus, Griliches analyzed two polar cases. In Figure 1(a) supply is completely elastic and the original supply curve is S'; after the development of hybrid corn, the new supply curve is S. Since supply is completely elastic, producer surplus does not exist and the net gain, $E+F$, represents the addition to consumer surplus. In Figure 1(b) supply is perfectly inelastic; with the introduction of hybrid corn, supply shifts from S' to S. The gain in consumer surplus is $A+B$; the gain in producer surplus is $-A+D$; and the net gain to society is $A+B+(-A+D)=B+D$, from which is calculated the gross social rate of return.

Peterson, on the other hand, used the in-between case of a positive sloping supply curve. Thus, as demonstrated in Figure 2, the net benefit to society is $G+F+H+I$, that is, the area between the two supply curves and the demand curve, as in Figure 1(b). This is so since the net gain in consumer and producer

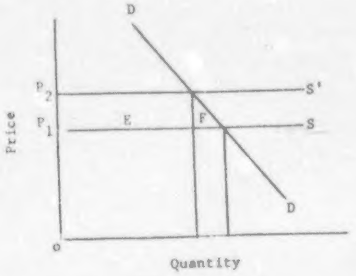

Figure 1(a)

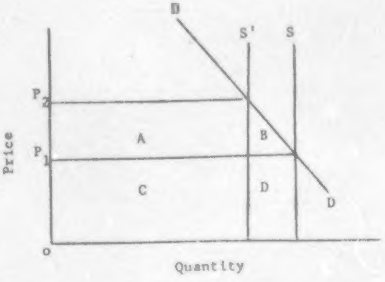

Figure 1(b)

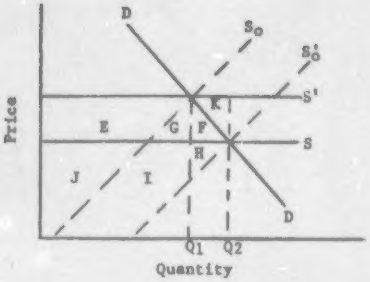

Figure 2

surplus is $E+G+F+(-E+H+I)$. As previously, the gross social rate of return is calculated from the area remaining after accounting for the changes in surpluses.

Various attempts at estimating the elasticities of demand and supply of processing tomatoes have met with little success.[2] Therefore, in computing the *gross* social returns from the harvester, we take the total production after the new equilibrium is achieved and multiply this by the ensuing cost savings per ton of tomatoes harvested. Thus, we are essentially measuring area *EGFK* in Figure 2, where Q_1 is the equilibrium level of tomato production prior to the implementation of the harvester and Q_2 is the equilibrium level of production when the harvester is in use. Therefore, we would overestimate consumer surplus, and hence the gross social gain to society, by *K* if the demand for tomatoes were *DD* and supply were perfectly elastic. However, if the supply curve for tomatoes is not perfectly elastic, our calculations underestimate the gross social rates of return if the true demand and supply functions for tomatoes are approximately those represented by *DD* and S_0' (compare *EGFK* and *GFHI*).[3]

To compute the *net* social rate of return from the development of the harvester, we explicitly took into account its effect on farm workers. With reference to Figure 3, prior to mechanization

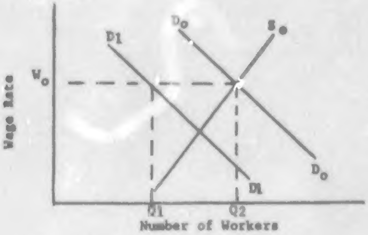

Figure 3

the demand for tomato workers is D_0 and the supply is S_0, but subsequent to the harvester the demand becomes D_1. As one extreme, we computed $W_0\ (Q_2-Q_1)$—the unemployment caused by the harvester—assuming no alternative employment possibilities and assuming that the remaining employed workers receive wages at least as high as those obtained prior to the implementation of the harvester. In addition, we calculated the net social rate of return assuming different levels of employment for farm workers in nonagricultural industries.

Gross Social Rate of Return

Gross social returns

We use "gross social returns" (GSR) to mean the value of the reduced costs of harvesting tomatoes by the mechanical harvester.[4] These returns differ from "net social returns" by the value of the costs incurred by workers displaced by the harvester.

Only for California have definitive studies been made of the comparative costs of hand and mechanical tomato harvesting methods [23, 36], and these data are used here for other tomato-producing states as well. According to the California studies, mechanical harvesting reduces costs by \$5.41 to \$7.47 per ton,[5] in-

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[2] For consumer tomato demand, Babb et al. [1] estimated the price elasticity to be −.76, but this was statistically insignificant. They attributed their difficulty in estimation to data problems. For supply response of planted tomato acreage, they estimated the short- and long-run price elasticity to be 2.18 and 4.49 in Indiana; 1.05 and 2.65 in Ohio.

[3] Other configurations for supply could lead to an overestimate of the gross social rates of return.

[4] Some benefits of the harvester have been omitted from our estimates. We neglect benefits accruing to foreign countries (Germany, the U.S.S.R., and Israel, for example) that have imported these machines. Manufacturers' profits from the sale of the machines were not independently estimated, but enter our analysis as a cost of the machines. Royalties received by the University of California, which holds a patent on the most commonly used machines, were not included in our estimate of benefits; these amounted to \$224,782 by 1969.

[5] These cost savings are not given explicitly in the studies; they were computed from Zobel's and Parsons' work [23, 36, 37]. Detailed calculations are available on request from the authors, as are the detailed calculations underlying the remainder of this paper.

Table 1. Rate of adoption of the tomato harvester, United States, 1965–1973[a]

Year	Percent of tomatoes harvested by machines		Total U.S. acreage of tomatoes harvested by machines
	California	Other states	
1965	25	0	48,302
1966	60	0	112,704
1967	80	0	144,905
1968	85	10	161,005
1969	90	20	193,206
1970	95	30	209,307
1971	95	40	225,405
1972	95	50	241,508
1973	95	60	257,608

[a] The rate of adoption was negligible before 1965 and is assumed to be zero for estimation purposes.

Sources: Adoption rates prior to 1968 were taken from Lynch [16]; succeeding adoption rates are the authors' projections (see footnote 7 of text). Estimated tomato acreage harvested by machine for 1965–1968 was derived by applying the above percentage rates of adoption to the acreage figures reported by the U. S. Department of Agriculture [33]. The equilibrium acreage in processing tomatoes was estimated to be 332,010, of which 257,608 are mechanically harvested.

cluding amortization and interest charges at 6 percent on the machine costs. The data apply only to tomatoes for processing since tomatoes for nonprocessing are still handpicked.

In order to estimate GSR from the harvester for the United States as a whole, it is necessary to estimate its rate of adoption. These estimates, presented in Table 1, are based on a total U. S. acreage of tomatoes for processing of 322,010, the average for 1966–1969.[6] We estimate that California will harvest 95 percent of its acreage by machine in 1973 and that the maximum rate of adoption by other states will be 60 percent. Webb [34, pp. 1–5] has estimated the total U. S. average rate of adoption to be 80 percent.[7]

Given these data and an estimated average yield of 22 tons of tomatoes per acre, we can now compute the GSR to the harvester for the United States. All estimates have been carried to the year 1973 when, by assumption, tomato acreage attains a constant amount. Thus, the annual GSR for each year, 1965–1973, are calculated at 6 percent interest to 1973 and then converted to an annual perpetual sum.[8] This, together with the annual GSR in 1973 and thereafter, constitutes the annual value of GSR to the harvester. The results are shown in Table 2.

Table 2. Gross social returns to the tomato harvester

Returns	Estimated cost reduction at	
	$5.41 per ton	$7.47 per ton
	dollars	
1. Cumulated GSR, 1965–1973	199,124,897	274,792,805
2. Annual value of cumulated GSR, 1973	11,947,494	16,487,568
3. Annual GSR, 1973	30,660,524	42,335,299
4. Total, 2 and 3	42,608,018	58,822,867

Research and development costs of the tomato harvester

Several universities and private firms contributed to research and development (R and D) of the tomato harvester. Reasonably good information is available on the costs incurred by two of the major parties to this invention—the University of California at Davis and Blackwelder Manufacturing Company of Rio Vista, California. The University of Michigan, the University of Florida, and the University of Maryland also have engaged in research and development; and some other firms, including H. D. Hume Company, Food Manufacturing Corporation, Massey-Ferguson, and Button Manufacturing Company, have incurred significant R and D costs in the development of tomato harvesters. Estimates of costs incurred by these universities and firms represent only an educated guess based on interviews with knowledgeable persons. Total R and D estimates compounded to 1967 are given in Table 3.[9]

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[6] Since this study was completed before 1969 acreage figures were available, total 1969 acreage was estimated to be 80 percent of the 1968 figure.

[7] Accurate estimates on the current rate of adoption do not exist. It appears, however, that for California at least 90 percent of the acreage is now mechanically harvested and could easily reach 95 percent by 1973. On the other hand, several people have expressed the opinion that our 60 percent adoption figure by 1973 for other states is too high. It may well be, however, that more processing tomatoes may be grown in California than the 55 percent of the acreage figure used. Therefore, we feel that the total acreage of 257,608 mechanically harvested of a possible estimated 322,010 acres is a conservative estimate.

[8] We cannot predict the ultimate impact of the harvester on wages, prices, and output; so, unless otherwise stated, we have assumed these to remain the same as in 1965–1969.

[9] Estimates include only direct R and D costs of developing the harvester. Costs to farmers and processors of transition to the new technique are not included, nor are the effects of the harvester on processing costs. R. Schuler of California Canners and Growers Association indicated that

Table 3. Research and development expenditures on the tomato harvester

	Expenditures[a]	
Universities (to 1967)		
University of California, Davis		
Non-Extension activities	$ 588,000	
Extension and related activities	100,000	
Other universities (including Extension)	600,000	
Total universities		$1,288,000
Private firms (to 1967)		
Blackwelder Manufacturing Company	$ 491,000	
Other firms	1,473,000	
Total firms		$1,964,000
Total 1967 value		$3,252,000
Total R and D costs: 1973 value (cumulated at 6 percent)		$4,585,320

[a] Figures rounded to the nearest thousand.

Rate of return

Given the above data on benefits accruing from the tomato harvester and the R and D costs to make the harvester a reality, it is possible to calculate the gross social rate of return (GSRR) to R and D costs as follows:

$$\text{GSRR} = \frac{\text{total annual value of gross social returns}}{\text{research and development costs}} (100).$$

Thus, assuming the low-cost saving of $5.41 per ton,

$$\text{GSRR} = \frac{\$42{,}608{,}018 \text{ (Table 2)}}{\$4{,}585{,}320 \text{ (Table 3)}} (100) = 929 \text{ percent.}$$

Similarly, for the cost saving of $7.47 per ton, the GSRR is 1,282 percent ($58,822,867 ÷ $4,585,320). Hence, the gross social rate of return may vary from 929 to 1,282 percent.

To this point we have followed traditional analysis to calculate the rates of return from an innovation in which the distributional effects are assumed to be zero. In the next section, this assumption is relaxed and the costs incurred by workers due to adoption of the tomato harvester are explicitly taken into account; but first we discuss welfare criteria relevant to this expanded view.[10]

Welfare Criteria

The concept of Pareto optimality implies that one cannot recommend a change from a state "*A*" to a state "*B*" unless everyone is better off in *B* than in *A*—that is, no one is worse off in *B* and at least one person is better off than in *A*.

A major problem arising is that Pareto optimality favors the status quo. But almost every conceivable change leaves someone worse off. Consequently, making recommendations on grounds other than "whatever is, is right" involves the inextricable difficulties of interpersonal comparisons of utility. If, for example, one is willing to recommend a change that will leave someone worse off than before, he is implying that he can cardinally evaluate the increase in welfare of the beneficiaries, subtract the decrease in welfare of the losers, and find a net increment in welfare. This is indeed a heroic presumption.

As a kind of halfway house between these extremes, the following "compensation" test has been proposed by Kaldor and Hicks. It is a necessary condition to recommending a change that the gainers shall be able to compensate the losers and still be better off. If the benefits of the change are not sufficient to pay its ordinary costs and compensation, it cannot be considered socially desirable. It should be noted, however, that it is not sufficient that compensation could be paid—it must actually be paid if a change from the status quo is to be recommended. Otherwise, the problem of interpersonal comparisons of utility still remains.

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it is extremely difficult to determine whether the net effect on processing costs is positive or negative. Finally, we have not entered the discussion as to whether the new tomato grown for mechanical harvesting is of inferior quality than that grown prior to mechanization. If the new variety is inferior, which is debatable, then the costs incurred because of inferior quality are not accounted for.

[10] We cannot go into all the complexities of welfare theory here. The interested reader is referred to Little [14] and Mishan [19].

The implications of this general analysis to the specific problem of the tomato harvester are clear. In order to determine the value of the harvester, we have to determine whether the gainers (producers, consumers, etc.) could compensate the losers (workers) and still be better off than before.[11]

Net Social Rate of Return

The tomato harvester displaced roughly 91 man-hours per acre of tomatoes harvested [23, pp. 1–9].[12] Using the acreage and adoption rates of Table 1, 478,637 man-hours were displaced in 1965; in 1973 and every year thereafter, 19,477,227 (see Appendix for calculations).[13] The average wage of harvest labor in California was approximately $1.65 per hour in 1967 [23]. With these figures, we computed the net social rate of return (NSRR) under varying assumptions of alternative employment opportunities and, hence, the amount of compensation (C) needed to offset the impact of technological change. The formula used is:

$$\text{NSRR} = \frac{\text{GSR} - \text{C}}{\text{R and D}} (100).$$

The results are given in Table 4. For the low-cost savings estimate of $5.47 per ton, NSRR varies between 929 and −8 percent as the amount of compensation changes from 0 to 100 percent of the estimated displaced wage bill. For 100 percent compensation, it is assumed that displaced tomato workers have no alternative employment opportunities. For the cost savings of $7.51 per ton, NSRR varies between 1,288 and 345 percent.

Table 4. Net rates of social return to R and D on the tomato harvester

Percent of displaced wage bill paid in compensation	Annual 1973 amount of compensation	Net rate of social return to R and D: Estimated cost savings at $5.47 per ton	Net rate of social return to R and D: Estimated cost savings at $7.51 per ton
	dollars	*percent*	
0	0	929	1,288
25	10,746,610	694	1,048
50	21,493,262	460	814
75	32,239,892	226	579
100	42,987,523	− 8	345

We have not attempted to estimate the actual amount of unemployment created by the harvester, since this would require knowing all displaced workers' future employments.[14] The estimated wage loss from 1965 through 1972 has been compounded forward to 1973 and then converted to an annual flow. Thus, assuming a wage of $1.65 per hour, the cost to the workers is overestimated because, while the conversion to an annual flow makes it possible to calculate the NSRR, this assumes an infinite life for the displaced labor. This assumption is untenable unless one believes that there is a lasting effect on the workers' families in denied educational opportunities and the like resulting from unemployment caused by technological change.

Actual Payment of Compensation

We have shown that the rates of return to R and D expenditures on the tomato harvester were highly attractive when measured in the conventional way. More important, the rates of return remain attractive after deducting reasonable amounts of compensation for costs incurred by displaced workers. However, since compensation has not actually been paid, it cannot be concluded that society as a whole has benefited from the tomato harvester.

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[11] The main losers from this particular technological change are farm workers. Undoubtedly there are other people who also lose, but these are not discussed [illegible] this paper. Furthermore, it becomes clear that cost-benefit studies must consider both allocative and distributional problems (see, for example, Prest and Turvey [25], Musgrave [21], and Knetch et al. [13]). Compensation is a necessary but not a sufficient condition for appraising an improvement. See Little [14, ch. 6] for a discussion of the Scitovsky reversal problem.

[12] The amount of the labor saved by the mechanical harvester is given in Parsons [23, p. 8]. The man-hours saved per acre vary from 29 for excellent workers to 178 for poor workers. The figure used, 91 man-hours, while substantially above that for poor workers, is only slightly below the man-hours displaced for good workers. However, it should be pointed out that Parsons' calculations are based on the specific type of harvester available in 1966 when approximately 20 good workers were needed per machine. A new tomato harvester will soon be made available which will require substantially less labor to operate; the use of an electronic sorting device can reduce the requirement to less than 8 workers per machine. In view of these recent developments, our estimates of labor displacement resulting from the harvester are probably conservative.

[13] When calculating the displacement by the tomato harvester, the analysis would become extremely complex if one attempted to distinguish between domestic workers and temporarily admitted aliens. In our analysis, we have assumed that had the tomato harvester not been invented the total workers employed would be the same as in the early 1960's.

[14] As Robinson [28, p. 2] points out, "Nearly four million workers were employed in 1957 in industries which did not exist or hardly existed in 1900. If we had been looking for jobs for those workers in 1900, we should never have foreseen the present number of workers in the motor industry and motor transport, in the making of gramophones, wireless or television sets, in electricity, or aviation. At any moment it is hard to foresee how those workers will ultimately be absorbed, for whose services in their former occupations there is likely to be less demand."

Our analysis has focused on unorganized workers confronted with technological displacement. Compensation was not paid because they lacked the organization to compel it. Contrast this situtaion with one in which workers were powerfully organized—the International Longshoremen's and Warehousemen's Union. Under the leadership of Harry Bridges, this union was able to mitigate the impact of technology on worker displacement through "featherbedding" provisions in its contracts, which it provided for many years. In the late 1950's, however, it became apparent that the momentum of technological development, particularly in the containerization of freight, would eventually overpower employment-preserving rules. Bridges recognized this in 1957 [9, p. 145]:

> I would say that we have resisted the impact of labor-saving machinery, mechanization, automation, whatever you want to call it, possibly with greater success than any other organization. It has been a combination of ways and means of going things and it has involved strikes, slow-downs, and what-not. However, we have reached the point possibly, and some of the demands that you are putting in (take this resolution, for example) and some other proposals for changes reflect the feeling that you have reached the point, where the battle against the machine for us has become a losing one. And we can continue to fight a losing battle, and we will lose in more ways than one, and finally after we have thrown away a lot of energy and a lot of bargaining power we will put on a showdown, last-stand fight, and we will lose that one, too.

Under Bridges' leadership, the union entered negotiations to trade its featherbedding prerogatives for job and income security and won a settlement of $5 million per year for 1961 through 1965; this, together with previous payments, totaled $29 million [9, p. 176]. In the union's view, $18 million of this, or approximately $3 million per year, was compensation for technological change or, as they put it, "the men's share of the machine" [9, p. 180].

The essence of the contract for the union was the principle of "sharing the machine." As Hartman [9, p. 344] says,

> In the longshore experience, the older workers won a great deal; the retirement bonus was the equivalent of more than a year's pay. The younger workers were offered less but their prospects for promotion were enhanced by accelerated withdrawal of the older men. Further, they believed that the principle of 'sharing in the machine' had been established and would provide benefits to them in the years to come.

The longshoremen achieved a share in the machine of approximately $3 million per year on an estimated annual industry net savings (in 1965) of no more than and probably considerably less than $59.4 million [9, p. 332]. Thus, the settlement was certainly no less than 5 percent and probably no more than 10 percent of industry's benefits. While the two cases are perhaps noncomparable, it is interesting to observe that, had the tomato workers received a similar share in the machine, their compensation would have been between $2 and $4 million per year. On this basis, the conservatively estimated net social return to the harvester would still have exceeded 700 percent.

Concluding Observations

Our study of the development of the mechanical tomato harvester provides a microscopic look at a general social dilemma. The talents of science and industry combine to create enormously productive innovations, but the very success of these sectors of society creates consequences which bear unfavorably, as Fuller [7] has pointed out, on less organized and therefore more vulnerable sectors.

In order to illustrate this fact, we briefly examined the contrasting impacts of technological change on tomato workers and longshoremen. But labor unions are not the only means of protecting vulnerable sectors of society. Indeed, as Schultz [29] has stressed, it is the social scientist's task to devise a variety of institutional structures appropriate to the problems with which society is afflicted.

Thus, for compensation purposes, an alternative to unionization may be a form of state intervention in which a tax is imposed on units of output. The proceeds from this tax would then be used to finance retraining, relocative, and retirement programs. This solution is theoretically sound, but if extended through all sectors of the economy that are subject to technological displacement, it would be an organizational monstrosity. Before embarking on programs of this type, it would be wise to seek more general solutions to this general class of problems.[18] Specifically, we might explore whether there are any possibilities that general social programs could significantly reduce the need for compensation itself. We believe there are.

The process of adjustment is particularly painful for displaced tomato workers because they are highly immobile, mainly because of limited occupational versatility. If a fraction of the great economies generated by such technological innovations as the harvester could be allocated out of general taxes and applied to destroying the "vicious cycles of poverty" that afflict society, immobilities—and thus the social costs accompanying such innovations as the tomato harvester—would be substantially reduced. Interventions of this sort would allow social costs and benefits to fall more or less randomly on the population as a whole and thus, in a sense, cancel each other. If this were to occur, "everyone" would be better off with technological change. That is, to us, the moral of the tomato harvester.

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[18] See, for example, H. G. Johnson [12].

Appendix

Total Man-Hour Displacement by the Tomato Harvester

The base acreage used prior to 1965 (that is, prior to the year when the harvester was used substantially) is 297,289, the average from 1958 to 1964. The base acreage used subsequently is 322,010, the average from 1966 to 1969. California is assumed to harvest approximately 55 percent of the processing tomatoes grown in the United States. Using the computations of Parsons [23], 163 man-hours were employed per acre prior to the harvester; with the harvester, this was cut to 72 man-hours.

Thus, prior to the harvester, 48,458,127 man-hours were employed (297,289×163). After the harvester was adopted, in 1965 for example, the number of man-hours employed dropped to 47,979,490, computed as follows: 322,010 [(163×.85)+(72×.15)]. This represents a displacement of 478,637 man-hours (48,458,127 −47,979,490).

It is estimated that in 1973 only 28,980,900 man-hours will be employed, computed as follows: 322,010[(163×.20)+(72×.80)]. Total displacement will then be 19,477,227 man-hours (48,458,127−28,980,900).

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Senator STEVENSON. Our next witness is Mr. Robert Long, vice president of the Bank of America.

We have had to shift the order of appearance of some witnesses. Dr. Friedland, and Mr. Henning will follow Mr. Long.

Thank you very much, Mr. Long, for accepting our invitation to testify.

STATEMENT OF ROBERT LONG, VICE PRESIDENT, BANK OF AMERICA, SAN FRANCISCO, CALIF.

Mr. LONG. Thank you, Mr. Chairman.

I am Robert Long, and I am a senior vice president of the Bank of America in charge of its agricultural lending program.

I would like to ask you, Senator, I have a short statement, I can read it if you would like, or I can file it with you.

Senator STEVENSON. I think, in the interest of saving time, if it is all the same to you, I would like you to summarize it.

We will enter the full statement in the record at the conclusion of your testimony.

Mr. LONG. We have attempted to, in our statement, separate the areas of issue that seem to be a part of your examination, Senator, from the standpoint of the business of agriculture as we would call it, as one question certainly before you, and the other which might involve the human and social environment in rural America.

The principal thrust of our statement will relate to the business aspects of agriculture where we loan substantial funds and where we are primarily involved.

It has been noted here that we make a large amount of credit available to California farmers and related industry, something in excess of a billion dollars for farmers themselves and maybe a half billion in the area of farm cooperatives and immediately related businesses.

If you would compound that with indirect services for agriculture, it would be two or three times that amount.

We deal with the important trends that are taking place in California agriculture which should be set forth, and I will note these briefly.

It's been frequently referred to today about the number of farms or farming units that operate today in California. Ten years ago there was something over 100,000 and today we are down to, depending upon which of the statistics you care to follow, somewhere in the neighborhood of 56,000. We feel that this dramatic change is primarily associated with the pressures of rising cost of production, taxes, labor and equipment of all kinds, which are incurred without commensurate increases in the return on the sale of products by farmers.

Also we note that farms must expand as farmers seek to keep pace with the trends in agriculture. Higher cost of purchase of supplies and services means that the farmer needs a much broader base today to maintain a competitive unit of cost. Therefore, the requirement is largely a factor of new technology requiring larger operations and, consequently, we are coming up with fewer farming units.

Another factor that is important in this situation is the need for increased capitalization of our farms here in California. Unofficial estimates—and there are no precise figures on this that I am fully aware of—place the average investment per farm in California at about $400,000. Net income, which was reported by the U.S.D.A. in their recent census taken in 1970, about $16,000 per farm, which would be about 4 percent on their investment.

I personally think, from my own experience, this might be a little higher in California at this time.

We further note that some three-fourths of this increase in total investment in the 1960's was attributable to the appreciation of real estate in the farming community. With the supply of farm land constantly decreasing, there is a clear trend. Increasingly, too, nonagricultural uses encroach upon agricultural land. In addition the property tax provides the basis of local government finance in California, as it does in other communities in the United States, and this increases the heavy pressures on agricultural operations.

Another factor is the incorporation by farmers. Of the incorporated farms in California, about 83 percent are exclusively in farming, and 90 percent had 10 or fewer stockholders. Farmers incorporate for about the same reasons that other small businesses do; specific examples would be inheritance taxes, liquidity, management continuity, limited liability, and other factors related to corporations and their value as a business entity.

Of the incorporated farms in California, about 56 percent are what we would call family farms or run by families. Family farmers incorporate basically in self-defense.

Recognizing these trends, farmers have naturally tended to specialize, shifted toward higher valued crops. They also have been faced with more sophisticated marketing systems and more sophisticated consumers. The relatively low price paid for farm products reflects the competitiveness in the industry which is basically a free-enterprise system, probably one of the best illustrations of its use in our U.S. economy.

In your letter to me you asked about the impact of these trends on the lives of California farm families. I think it might be helpful, Senator, if I gave you a few specific examples which come from our Statewide loan files of the bank.

Take the case of a farm in California's Central Valley. This farm happens to grow cotton and Thompson seedless grapes. The grapes produce about $55 a ton on the current market. He produces this crop on 130 acres. His annual gross income is expected to be, in this current period, about $50,000. He hopes to net about $9,000 in annual income before personal income taxes. Seasonally his crop line of credit from us amounts to about $45,000. The total investment in his farm happens to be $270,000. His annual net income represents about 3 percent of his investment. We have financed this farmer for years; he is [illegible] good farmer; we want his business and, of course, we want him to continue in business.

Let me give you another case where the results were somewhat different. A 250-acre farm in the San Joaquin Valley, this farmer used about $57,000 in lines of credit from us to grow cotton, alfalfa, grapes, corn, and some pasturage. Total investment in his farm amounted to about $380,000. He had a gross income of about $59,000, which yielded him about $2,300 in net income, a net return on investment of less than 1 percent annually.

I will give you one more example of a farm of 250 acres growing peaches and grapes. His investment in this farm is about $400,000. He used a line of credit from us of about $120,000. His gross sales were $160,000 and yielded about $40,000. In this case he had an annual return of about 10 percent on his investment, which would be reasonably good by most standards.

In contrast, a farm with a similar investment, in this case amounting to about $430,000, used a line of credit of $84,000 from us and generated sales of $85,000. His net income on 255 acres of alfalfa, cotton, and tree fruit was less than $10,000, which is an annual return of less than 2½ percent.

I have some other examples here in the statement.

We see this situation as a confrontation which creates specific and difficult credit problems and, in our concern about this increasing trend, we have undertaken a careful examination of certain specific areas within California. In the Sacramento Valley, there are many peach and prune growers, among others, who are confronted with some real difficulties. I will give you quickly some of the trends involved in our examination.

There was a growing trend toward operating deficits triggering a decline in value of the land and hence a depletion in their bankable equity. There was excessive production combined with a poor market and price situation. There was rapidly rising debt and debt service obligation in the face of declining ability to service additional debt.

These conditions combined to weaken the financial position of growers in these two industries. Many of them have fallen below desirable and sound credit standards.

Our analysis substantiates our reason for concern, because we found the ratio of debt to equity in a level of about 60 percent. In most instances, this is too high for agricultural people to carry.

Appraisals by our own people, confirmed by the USDA, showed this particular area to have a value per acre of $2,000 in 1967. In 1971 the average value of the same acreage was $1,200.

Our study was limited, but we find that conditions like this in various parts of the State of California are not unrealistic. This is the kind of trend that many farmers are experiencing where low profits prevail.

Frequently there are terms used such as "large" and "small" and so forth. We would like to emphasize in our testimony that such applications have meaning only in relation to specific crops. Forty acres of a well-sustained, well-established farm raising a variety of grapes in the Napa Valley might be quite satisfactory as income, but a peach grower with about the same investment in the Sacramento Valley, with the same acreage, would be in a very difficult position today.

The Bank of America supplies about 40 percent of the crop production loans in the State of California. We would like to be able to increase it because most farmers throughout the State need additional capital to operate their farms. As you can see from some of these situations, it is becoming increasingly difficult for all financial institutions, including ourselves, to meet the credit requirements with the conditions that exist today.

Smaller farming operations find it difficult to achieve the economies of their neighbors, sometimes only twice their size, and this is the real impact in California in terms of what is happening to the size of farms and the number of farms.

Unmistakably, one of the problems they face is their ability to market their production. The farmer is up against a highly sophisticated farm-to-market mechanism and he is also faced with a price-conscious consumer in today's family shopper. There are numerous farm-marketing cooperatives in California, probably the best developed marketing system of its kind anywhere in the world. They are primarily designed to assist the small or medium sized farmer in efficiently packaging and selling their production. To some degree they have assisted this size operation in continuing in business.

We have extended substantial lines of credit to these cooperatives over long periods of years.

The bank supports a desirable goal to have a healthy and prosperous farm community. In addition to extending banking credit to a wide range of farms of all sizes and farming interests, we sponsor a wide variety of programs designed to serve rural California, and the emphasis in this program is upon youth.

In 1971 the bank paid about $2,300,000 to young people for animals which they raised, and we undertook to collect the purchase price from the ultimate buyers, which, in effect, guaranteed their market and provided them an opportunity to get involved in the business of agriculture in a meaningful way.

Some $116,000 went into various farm youth grants, scholarships, and awards. Nearly $50,000 went to farm youth auctions; $350,000 financed 1,300 junior agricultural projects, and there are more similar programs.

In finalizing my comments, I am particularly concerned about the feeling many have that financial institutions, including our own in California, only finance the large operations. I went out to the San Joaquin Valley and talked with our manager at the Fowler branch. We have a branch system which provides a total lending limit of the bank to every branch within the system, and there is no shortage of credits or loanable funds available to agriculture in California. I found, in looking over his portfolio of loans, it ranged all the way from $1,000 to $300,000, and something in excess of 100 individual credits extended in a year. It does not necessarily tell us the size of the farm, but it does indicate the majority of these were probably small to medium size. Fowler is a reasonably typical farming community in the San Joaquin Valley of California.

To summarize, we would like to say that our bank and many financial institutions within the State of California have a large stake in agriculture. We are concerned about it and we share in that stake in many ways. We are their partners in a financial sense, so we are concerned about the size of their debt, which is growing, and their ability to service it. We are also concerned over their inability to generate sufficient capital from their own operations to satisfy the increased requirements for operating successfully in California. But we do have faith in California's agriculture and the future of the State's rural population. We are there and we expect to remain there and we expect the community itself to grow and prosper.

I wish to make one final comment on unit efficiency. I firmly believe that there are efficient levels, depending upon the crops grown and the mix of these crops, in which a medium and even a smaller farmer can compete quite effectively and be very efficient in terms of all economic standards with any size farm up to several hundred thousand acres.

Their problem is the problem of economics of the business, which is no different than in any other part of the United States except it may be more intense here in California. So our main concern, our main effort, and our main involvement is trying to help find ways to help these people to be more viable and more able to remain profitably in business and in a healthy condition.

In summary, Senator Stevenson, this is the substance of our statement which we have provided to your committee and we hope it will be helpful in your examination.

Senator STEVENSON. It is very helpful, Mr. Long, and I thank you for it.

You say the Bank of America has a stake in agriculture; clearly it does, all of the people of California do. It is the No. 1 industry in California.

Can you tell us what percentage of the bank's total outstanding credit is in agriculture now?

Mr. LONG. Frankly we do not separate our statistics in the bank, agriculture as opposed to another commercial entity. We consider agriculture part of the commercial loan portfolio. I would guess, if you would allow me that, that is it less than 10 percent of the total outstanding portfolio of the bank.

Senator STEVENSON. Would you guess or know if that percentage has increased in the last 10 years or decreased?

Mr. LONG. No. It would have decreased in relation to total bank lending because, as you probably realize in a bank of our size, we are in all types of lending. We also have what we call a wholesale aspect of the bank in which very large sums of money are involved here in the United States and other parts of the world and there would be no way for any one commercial activity to maintain a constant ratio in relation to that kind of growth. There, I think, would be a declining relationship in all industrial and commercial activity against this total. Agriculture would be no exception.

Senator STEVENSON. That being the case, do you believe that the credit facilities in California are adequate to the needs of agriculture, including the small farmer?

I apologize for using that word, small, but I don't know how you draw the line.

Mr. LONG. Smaller, at least.

Senator, I can respond in this sense. It has been a long-standing policy of the bank and continues so today, to never restrict funds to agricultural borrowers. We have on occasion restricted other areas when we have been in tight money situations, which occurred, as you may know, in the sixties a couple of times. It has never been true for agriculture.

What I am trying to say, is that the difficulty we face today with our agricultural borrowers is their inability to support the credit requirements which are increasing, and they cannot, on normal credit application standards, really support that increased requirement. This is the problem.

Senator STEVENSON. That is what I am getting at. What I am wondering is whether additional credit facilities, perhaps publicly supported, to assist family farmers with public guarantees of credit, aren't needed in order to help the family farmer acquire the land and the equipment that he needs in order to compete in agriculture?

Mr. LONG. Yes, I think so. We supported and welcomed the increase for a more liberal lending capability of the Farm Credit System, for example, and mainly because we see a broad and growing need. We can't service it all ourselves, we know that. Present policies probably should be strengthened in this area.

We would further hope that the ability of the Farm Credit System would not be diluted into other activities, away from agricultural needs, needs of the farmers and growers. If public policy can support this, we certainly would agree with it. More funds are needed, not less.

Senator STEVENSON. Would you say, in addition to the funds needed for farmers, that assistance and managerial skills, particularly for family farmers and cooperatives in order to make them more attractive borrowers from your bank, is needed?

Mr. LONG. Yes, this is a subtle but important area. Most of our farmers today are, by standards of production alone, very efficient people. They wouldn't be in business today if they were not. Those who are not efficient probably have gone out of farming some years ago. But they do have to develop stronger skills in financial management, in general management, in anticipation, in being able to forecast the trends in their industry and their own operation within that framework.

One program which we have in the process and will be available this year is a new system to provide for farmers assistance in developing better cash flow, better profit and loss statements, better financial statements, all of those things which are basic financial tools and will assist in their operations. It will actually help the smaller operations more because those are the ones who don't have available the sophisticated computerized systems of today. This system will be made available statewide this year.

Senator STEVENSON. I asked that partly because I noticed through your enumeration of services to people in agriculture, you did not enumerate managerial help. But I take it that is because you regard that as a different form of service?

Mr. LONG. It is an important contribution to their needs. I think we have lived and worked long enough with them to understand where these needs are, and of course, there is an acceptance requirement on the part of producers, too, that they feel the need for this capacity.

Let me add one thing in your earlier question about credit availability. I would like to go back to a previous point that I am concerned with which is the present levels of earnings in agriculture and the farmer's ability to service credit. They do have to repay the loan.

Senator Stevenson. You are not too concerned about the ability of Tenneco, and other so-called corporate farms, to repay?

Mr. Long. No. These services they don't need; they have that ability now. A personal opinion, I think it would help, yes. I would hope, whatever we did, we would do it through the existing credit system, both public and private, in some form.

Senator Stevenson. As part of the existing system, we do have the Small Business Administration program—guaranteed loans to small business. I am not sure we have anything quite comparable for agriculture.

Mr. Long. Agriculture does not qualify in that area; it is specifically excluded.

Senator Stevenson. From the SBA, yes.

Mr. Long. Yes.

Senator Stevenson. Let me just make sure I understand something that you said. Am I to understand that the Bank doesn't have a breakdown of your outstanding loans, large and small, for example, by aggregate amount, or by number of loans to, say, farmers with an average of 160 acres, as opposed to other farmers? You don't have any such figures?

Mr. Long. I am sorry we don't. I would imagine it would be useful information for ourselves as well as others if we did know.

As I pointed out earlier, that is not a consideration as far as their financial relationship with us, and so our statistics are not geared to this type of division.

Senator Stevenson. Would you have any such breakdown based on gross income of the borrowers as opposed to land holdings?

Mr. Long. No; although I think maybe the USDA does have some information on the subject. I have read reports which they have put out. The Federal census has already provided some separation of a real farmer, as opposed to someone part-time farming or otherwise, and have them categorically divided. There may be more information in the most recent census. We are looking forward to that report also.

Senator Stevenson. The USDA wouldn't have figures on your outstanding loans to farmers of $10,000 in income or less, that you don't have?

Mr. Long. No, they don't, and I don't think anyone has that type of information, Senator, at this time.

Senator Stevenson. In your statement you say the business of agriculture and human and social environment in rural America are separate issues. Could you explain a little what you mean by that? Why are they separate issues for you as a banker?

Mr. Long. Yes. As we see it, our concern, the primary concern, at the present time, as a lender, is with the farmer and the rancher.

Senator Stevenson. Without regard to the social impact of his activity?

Senator LONG. Not necessarily. We see them as two separate issues, and our testimony here this morning is primarily, as you can tell, related to the business aspects of agriculture in California.

Senator STEVENSON. Mr. Long, I was interested, among your examples of borrowers, in the disparity in return on investment. How do you explain that? Does this depend upon the crop, or is it the managerial skill, the industry of the farmer?

Mr. LONG. Managerial skill would enter into it. I think the biggest factor is in the variation in the crops. In other words, there are a wide range of crops produced in California, as you know, and most farmers and most farms have more than one of these crops. Each of them can have an entirely different economic cycle in which they are operating in any given year.

For example, peaches and prunes, which I noted in one of the illustrations, returns are below production costs right now for most producers. In contrast, varietal grapes have gone from an average earnings of something over $100 per ton to as high as $600 per ton. There are relatively few in number in this category who can't make quite a handsome living.

So you have tremendous extremes in conditions. I have tried to make the point that it doesn't always matter how many acres are involved—the most important thing is what is on it.

Senator STEVENSON. These examples would also, I suppose, make it quite clear you do know something about the income of your borrowers and I should think, as a matter of prudent banking, you would have to follow rather closely the financial ups and downs of your borrowers, including their income from year to year.

That being the case, wouldn't it be possible to break out the figure on the bank's total outstanding credit to farmers with income of, say, less than $50,000?

Mr. LONG. I think that in the next few years we might be able to do it. But the only way we could today, except to do it by hand, would be by going through branch by branch, account by account, totaling it in that way. It would be a very expensive and a very slow process, and we have had no economic reason to do it.

Senator STEVENSON. Would it help for me to give you a reason, like a request for breaking that figure out? Would it be something you could do for us?

Mr. LONG. We will have information of this kind as we convert data that we have in our branches to the computer, which we are in the process of doing. When we have that, most of it will be programed in such a way that we will be able to determine a wider range of information that we don't now have, even for our own management information.

We are hopeful that this will not only be useful knowledge to us, but will help in assisting our customers on forecasting, giving them better financial counseling in terms of their need. It is likely to happen as a result of the information we have. We will make it available to the borrower. I don't know whether it would be possible except with months of work to produce the information along the specific lines which you just suggested.

Senator STEVENSON. If it is possible, we would welcome it. If it is not possible, we would be very glad to get it when it does become available through your computerization.

Let me just raise another issue which has been raised before in our hearings and, if not in testimony this morning, I think it has been in some of the materials that have been submitted during the course of the hearing this morning.

Charges and complaints are made periodically about so-called interlocking directorates, the members of your board or of agri-businesses who serve on the boards of both corporations as well as on many other corporations, with the suggestion being that the relationship gets cozy and that a corporation and agricultural member of its board on the board of the Bank of America gets preferential treatment.

Would you just care to comment at all on this whole issue?

Mr. Long. I would make this one comment, and it is strictly in terms of the Bank of America's policy, and I won't comment about anybody else's, the Bank of America's management group, from its president on down, may not be, in my understanding, a member of another board during the course of their active management responsibilities with the bank. To the best of my knowledge, none of them are.

I did hear the reference to Mr. Peterson this morning in regard to the various boards that he is on today, and, of course, all of this participation took place after he retired as a president of the bank.

Senator Stevenson. Let me just make sure I understand. No member of the board——

Mr. Long. No, I didn't say the board; I said the management of the bank. I am saying the management of the bank, the president and all the executive officers.

Senator Stevenson. What is the policy with respect to interlocking directorates?

Mr. Long. I don't know; I have no knowledge.

Senator Stevenson. One other question, Mr. Long.

I used to be a lawyer for a large bank. I think I can appreciate the business problems that you are faced with in this case. But isn't the little farmer also penalized, when it comes to acquiring credit, by higher interest rates? He is apt not to be as good a risk, I suppose, so therefore he gets charged with a higher rate of interest. He doesn't get the prime rate, does he?

Mr. Long. No farmer does in California, all sizes, any size.

Senator Stevenson. By farmer, do you include conglomerates?

Mr. Long. We have a few of them in California. It depends, obviously, on their financial strength if they are able to borrow at the best rate and anyone may, whether he be a very small farmer or a large corporation, if they qualify under those terms, would get the prime rate or our best rate. This relates to the deposits they keep with the bank. It relates to all their relationships, the ability to repay. I think you are familiar with those general requirements. It could apply to the very small farmer.

Senator Stevenson. Yes, it could apply. It probably doesn't very often.

Mr. Long. No.

Senator Stevenson. Would a system of guarantees, public guarantees, for loans to the small farmer eliminate that rate differential?

Mr. LONG. I think it would reduce it. I would be speculating now in terms of my own opinion as to the nature of the guarantee and so forth, but I would assume that if the full faith and credit of government were behind a particular guarantee program, one kind or another, it would have an effect on the rate.

Senator STEVENSON. It would have an effect on the rate, but it wouldn't eliminate it, I suppose, for among other reasons the little farmer doesn't have compensating balances, does he?

Mr. LONG. No, we don't require balances from the farmers. This is the reason his rate is slightly higher, but no higher than other commercial borrowers in any business. We have what we call a prevailing rate in California for our commercial borrowers at all levels, and it is generally higher. It is the prime rate level plus whatever interest rate relates to that particular borrower.

The farmer actually, if you pencil it out, and include the fact that we do not require balances as we require them from corporate borrowers who receive the prime rate, their actual cost of the funds is no greater than to the corporate borrower. This is because of the compensating balances and other financial features under which they must qualify to get the prime rate. So actually farmers do very well rate-wise in California.

Senator STEVENSON. The family farmer?

Mr. LONG. Yes.

Senator STEVENSON. Vis-a-vis the corporate farmer because of the compensating values required of him.

We must move along to other witnesses. Thank you very much, Mr. Long. We appreciate your appearance here this morning.

(The prepared statement of Mr. Long and the following letter which was hand delivered to Senator Adlai E. Stevenson III, chairman of the subcommittee, during the afternoon session of the hearings on January 11, 1972, follows:)

STATEMENT TO SUBCOMMITTEE ON MIGRATORY LABOR
OF THE SENATE LABOR AND PUBLIC WELFARE COMMITTEE

BY ROBERT W. LONG, SENIOR VICE PRESIDENT-LOANS

BANK OF AMERICA N.T. & S.A.

JANUARY 11, 1972

Mr. Chairman, Senator Taft, my name is Robert W. Long, and I am a senior vice president of the Bank of America and responsible for agricultural loans.

I am impressed with the complexity of your inquiry outlined in your letter to me last month. The bank's staff has worked hard to assist me in developing a meaningful response concerning the bank's role in California's diversified agriculture. Your letter covered these vast areas:

* You talked of trends in agricultural development, including the ownership, use and distribution of land.

* You showed a concern with the effect these trends have upon the lives of farmers, farm workers and others.

* You expressed a desire to learn firsthand of the impact of governmental policies and programs upon the persons in rural America.

* And specifically you asked to hear about the way in which a Bank such as the Bank of America has been able to help promote agricultural development in a manner which benefits farmers, farm workers and consumers.

First, the Bank of America has a record of service second to none in the rural communities and to the agriculture of this state. Bank of America in 1971 had lines of credit to the agricultural production and processing community in excess of 1.5 billion dollars. Our total commitment to interests closely allied to agriculture may well be three times this total.

Agricultural credit always has been a first line responsibility at Bank of America. Since we operate a statewide branch banking system, the entire resources of the Bank are available within our legal lending limit to all branches.

The Bank of America, in times of short money supply, has occasionally restricted the dollars available in some areas of commercial lending. Agricultural credit has never been restricted.

From the very beginning, the Bank of America -- perhaps more than any other financial institution in California -- has consistently and effectively supported agriculture in California.

Because we are so deeply involved in the agricultural production within California, we know its strengths and its weaknesses. We are aware of the economic trends. This knowledge also forces us to concern ourselves with the direction in which the various segments of the industry are moving.

Before we examine economic trends -- and the points which your letter raised -- let me clarify one point. In my opinion, there are two distinct considerations which are before you today. First there is the question of the business of agriculture. Second, there is the human and social environment in rural America. These are separate issues, even though agriculture forms a vital part of rural America.

From the economic standpoint, a healthy agricultural production serves the well-being of rural America. But farmers alone cannot resolve the social conditions in rural America. Nor can government alone solve these social issues only through agricultural policy. It probably will require a partnership between the public and private sectors.

Clearly the current statistical definition applied by the federal government defines rural America as communities of 2,500 persons or less. In California many persons engaged in agricultural production -- if not the majority -- live in communities of more than 2,500. By the same token a subdivision of 50 homes and possibly 200 people outside the boundaries of a small town may be classified as rural while there is little likelihood of anyone within that subdivision who makes a living from farming.

More indicative is the fact that the rural population remained at roughly 54 million persons over the last decade, while the farm population as a proportion of that population declined steadily. In 1920 farm people made up three-fifths of rural America; in 1970 farm people made up only one-fifth of rural America. Many factors contributed, but agricultural changes represented only a part of the history.

Another illustration, equally dramatic, comes from the California 4-H Club movement. Among the membership, 65 per cent are urban dwellers.

The trends in California agriculture -- including the patterns of land use -- are reflected in these four key indicators:

First, the number of farms has fallen sharply from 104,000 ten years ago to some 56,000 farms today. This reflects the pressures associated with rising costs of production and of land, taxes, labor and equipment without commensurate increases in the returns from the sale of crops.

Second, farms must expand as farmers seek to keep pace with the trends in agriculture. Higher costs of purchased supplies and services mean that a farmer needs a broader base to maintain competitive unit costs. Therefore, it is the requirement of new technology which forces larger and fewer farms.

Third, farms require increasing capitalization. Unofficial estimates place total average investment per California farm at about $400,000. With net income in 1970 reported by the U.S. Department of Agriculture at some $16,000 per farm, net return on investment would be about 4 per cent.

Some three-fourths of this increase in total investment during the 1960's was attributable to appreciation of real estate values. With the supply of land constant and the population increasing the trend is clear. Increasingly, too, non-agricultural uses encroach upon agricultural land. In addition, the property tax provides the basis of local government finance in California. Thus, increasing demands upon local government weigh heavily upon the farmer.

Fourth, many farmers are incorporating. Of incorporated farms in California 83 per cent are exclusively in farming. Ninety per cent had 10 or fewer stockholders. Farmers incorporate for the same reasons as do small merchants and professional men and women. Specific reasons include inheritance taxes, liquidity, management continuity and limited liability. Of the incorporated farms in California 56 per cent are family farms. Family farmers incorporate in self defense as our society grows more complex.

We do not keep our records from the standpoint of the size of the borrower. But in an effort to give you some idea of the scope of the Bank's lending program, I went to our branch manager in the San Joaquin Valley farming community of Fowler. In Fowler all our credit lines range from $1,000 to more than $300,000 with the majority being less than $20,000. Obviously they are nearly all small or medium size operations.

In the face of today's trends, farmers have specialized and have shifted toward higher valued crops. They have faced increasingly more sophisticated consumers. The relatively low prices for farm products also reflect the competitiveness of the industry as well as the relatively weak market bargaining position of the farmers generally.

You asked about the impact of these trends on the lives of California farm families. Let me cite specific examples from the statewide loan files of Bank of America.

Take the case of a family farm in California's Central Valley. This farmer grows cotton and Thompson seedless grapes (the $55 a ton variety) on 130 acres. His annual gross income for 1972 is expected to run about $50,000 and he hopes to net about $9,000 in annual income before personal income taxes. Seasonally his crop line of credit amounts to nearly $45,000 and the total investment in his farm is valued at more than $270,000. Thus, his annual net income represents a return on investment of only 3 per cent. We have financed this farmer for years. He is a good farmer. We want his business and we want him to continue in business.

Now let's look at another case, where the results were different. On this 250 acre farm, the farmer used $57,000 line of credit to grow cotton, alfalfa, grapes, corn and pasture. The total investment in his farm amounts to $380,000. He had a gross income of about $59,000, which yielded him only $2,300 in net income -- a net return on investment of less than one per cent annually.

Another family farm growing peaches and grapes on 250 acres had total investment of $400,000 and used a line of credit of nearly $120,000. Gross sales of $160,000 yielded net income of about $40,000 to this farmer -- an annual return of 10 per cent on investment.

In contrast, a farm with a similar total investment (amounting to $430,000) used a line of credit of $84,000 and generated gross sales of $85,000. Net income on this 255 acre alfalfa, cotton and tree fruit farm was less than $10,000. This is an annual net return of less than 2½ per cent.

A grape grower with 220 acres had an investment of $570,000, a line of credit of $140,000 and gross sales of $150,000. His $9,000 net income gives him a net return of less than 2 per cent -- with nothing for his labor and management.

We have similar examples numbering in the thousands, but my point here is: First, that there is a wide range of income performance on farms of similar size and investment, depending on location, types of crops grown and managerial ability; Second, that farms with investments ranging up to (and beyond) one-half million dollars provide incomes barely, if at all, that qualify in the range of "middle incomes."

Confronted by increasing credit problems in two specific industries, prunes and cling peaches in the Sacramento Valley, Bank of America undertook a study of the financial and economic conditions underlying this problem.

The findings showed that the farmers were confronted with (1) a trend toward operating deficits; (2) a decline in the value of land; (3) a depletion of bankable equity; (4) excessive production combined with a poor market and price situation; and (5) rapidly rising debt and debt service obligations in the face of a declining ability to service additional debt. These conditions had greatly weakened the financial position of growers in these two industries. Many of them have fallen below desirable and sound credit standards.

Our analysis substantiated our reasons for concern. The ratio of total debt to equity for these growers was nearly 60 per cent. This is a relatively high ratio of debt by most business standards, especially in view of a net return on investment of only 4½ per annum.

Recent appraisals by qualified bank personnel show a substantial drop in the value of good quality producing orchards from $2000 per acre in 1967 to about $1200 in 1971. This is corroborated by data recently published by the U.S.D.A. and documents the weakening of the growers equity position, further compounding his financial problems.

While our sample in this study was limited, the findings are characteristic of economic problems in many farming areas of the state. The difficulties these farmers are experiencing are due to unfavorable economic and market conditions within the industry. Many of these farms are simply approaching the limits of the debt burden their farms can carry.

As I noted earlier in the examples of farming operations in California, the terms "small" and "large" when applied to farms have meaning only in relation to specific crops. Forty acres may well sustain a family farmer raising varietal grapes which can bring more than $300 a ton. But a peach grower with 40 acres requiring a similar investment may be in bad shape.

The only reason that Bank of America -- which provides nearly 40 per cent of all non-real estate agricultural loans in California -- cannot substantially increase its credit commitment to farmers is because of these deepening economic pressures which we have discussed earlier.

The smaller farmer whose operation is unable to achieve the same or better economies of his neighbors, no matter what size, will not be able to continue in the present economic circumstances. To try to perpetuate the minimal operation would be no kindness to the farmer and probably would result in rising losses for the bank. Well managed, efficient units, no matter what size the operation, can and will survive.

Unmistakably, when it comes to marketing, the farmer is up against a highly sophisticated farm-to-market mechanism as well as a highly price-conscious consumer in today's family shopper. The numerous marketing cooperatives in California are designed to assist small farmers in efficiently packaging and selling their production. They have proven to be highly successful. We have for years extended substantial credit lines to these cooperatives.

As I stated earlier our Bank supports the desirable goal of a healthy and prosperous farm community. In addition to extending banking credit to a wide range of farm and farming interests, we sponsor a variety of programs designed to serve rural California with particular emphasis upon its youth.

In 1971, for example, the Bank of America paid $2,325,000 to young people for animals which they raised, and the Bank then undertook to collect the purchase price from the various buyers. This guarantees the market for the youthful producer.

Some $116,000 went into farm youth grants, scholarships and awards; nearly $50,000 went into farm youth awards and auctions; $356,000 financed some 1300 junior agricultural projects; and some 400 awards were given by the Bank at various 4-H field days alone last year.

Bank of America supports every major livestock show in the state of California and co-sponsors with the California Department of Agriculture and the livestock industry the well known "California Livestock Symposium" in Fresno. We sponsor young farmer programs, Farm Bureau youth programs, all 4-H and Future Farmers of America regional field days, scholarships for graduate work by agriculture teachers, and all in all some 100 different programs to better California.

To benefit present farm customers we are in the process of developing an agricultural business planning service -- a service which should benefit farmers large and small. This system is designed to assist in setting more responsive lending policies, helping officers make individual credit decisions and serve as a planning tool for the individual farmer too. If anything, the system will be oriented toward the small farmer who today lacks access to sophisticated budgeting procedures and advanced computer technology.

We in California have a big stake in agriculture. We in Bank of America share in that stake. We want viable, self-reliant customers.

We have faith in California agriculture and in the future of the state's rural communities. We are there, and we expect to remain there in a financial capacity.

(The following communication was received from Mr. Long on the afternoon of January 11, 1972)

BANK OF AMERICA

ROBERT W. LONG
Senior Vice President

January 11, 1972

Senator Adlai E. Stevenson III
Chairman
Subcommittee on Migratory Labor
c/o Senator Allan Cranston
450 Golden Gate Avenue
San Francisco, CA

Dear Senator Stevenson:

After returning to my office following my testimony this morning, I found that my response to one of your questions was inaccurate. You asked me to comment concerning the extent of interlocking directorates in our bank. I stated that I had no comment or particular knowledge of the other directorships held by our own board members. I went on to say that our bank had a policy against having its active officers holding directorships in other business corporations. It has been pointed out to me that there are limited exceptions to that policy. Some officers have been permitted to retain existing directorships when they are hired by the bank, and quite recently we have permitted a few officers to accept invitations to join boards of directors when they are within a year or two of retirement. There are also rare occasions when it is necessary to have a bank officer represent the bank's interest as pledgee of a substantial block of stock in a closely held corporation which is having difficulties.

I would like to reiterate that the bank's policy is as I stated it this morning, but I should have recognized at the time that this policy, like all human rules, is subject to exception.

Yours very truly,

BANK OF AMERICA NATIONAL TRUST AND SAVINGS ASSOCIATION · BANK OF AMERICA PLAZA · SAN FRANCISCO, CALIFORNIA 94120

Senator STEVENSON. Our next witness, and I apologize to him and to all of our witnesses this morning for running so far behind schedule, is Mr. John Henning, the executive secretary-treasurer of the California AFL–CIO.

I might add Mr. Henning has also had a distinguished career in public service, among other things he is the former Undersecretary of the Department of Labor.

Thank you, Mr. Henning, for joining us.

I will say the same thing to you as to other witnesses, that if you could just summarize your statement, we would be glad to enter the full statement in the record, at the end of your testimony, but proceed as you wish.

STATEMENT OF JOHN HENNING, EXECUTIVE SECRETARY-TREASURER, CALIFORNIA AFL–CIO, SAN FRANCISCO, CALIF.

Mr. HENNING. Thank you, Senator.

If you don't mind, I would like to read some of the more pertinent points.

First, we appreciate the opportunity of testimony. The plight of the farmworkers in California relating to having its origins in land distribution and corporate greed has a long history, and Federal and State agencies have reviewed this problem over most of this century. It was my pleasure to participate in some of the more interesting views of the past, among them the Warren Commission study in 1949, which was concerned with maldistribution deaths of the San Joaquin Valley. Seven children died in farm labor camps that year and I don't remember the Bank of America or any other corporate institution showing any social conscience at the time.

It was also my pleasure to participate in the hearings of 1950 which were conducted by President Truman's Migratory Labor Commission. We got very little out of those hearings in the past. Out of the Warren Commission on Malnutrition did come the registration of farm labor contractors. And I would like to think that out of President Truman's Migratory Commission at least there came some impetus for the expansion of social security and minimum wage protection on a Federal basis.

In the final analysis, however, the only way farmworkers can achieve an adequate standard of living is through unionization.

Senator, I would like to speak first to the union issue and, secondly, to the land and water question.

We need something like the great union organizing drives of the 1930's which lifted millions of unskilled industrial workers out of poverty. To indicate how farmworkers aren't keeping pace, in the year 1971 the average California farmworker received $1.39 per hour; the average factory worker more than $4 an hour. The farmworker doesn't know constancy of employment. He averaged less than 1,200 working hours in the year as against 2,000 for the industrial workers.

The United Farms Workers Organizing Committee, our affiliate, has been notably successful in its efforts, despite the resentless opposition of powerful agricultural interests here in California and elsewhere.

A spokesman for the Bank of America referred to services to agriculture in the past. He did not include subsidies granted to antilabor organizations, the purposes of which included the denial of farmworkers' rights to organize and bargain.

On this question of opposition, Senator, I would ask you and your committee to look at the alleged assassination stories concerning Caesar Chavez, the director of the United Farm Workers Organizing Committee. Our organization has formally requested the Attorney General of California to investigate the charges which have their origins in the statements of a U.S. Treasury Department informant. This is public property, Senator; however, what is not public property is the fact or the report provided us that the U.S. Treasury Department is refusing to give to the law enforcement agencies of this State tape recordings provided that Department by the informant sent underground to check the assassination story or charge regarding Chavez.

If this committee is going to get close to the guts of migratory labor life in California, it should ask the Treasury Department to release that recorded tape with allegations of involvement in the assassination proposals.

The struggle of the farmworkers can only be described as heroic. I refer here to the United Farm Workers Organizing Committee, as its leadership and membership have traveled across the Nation developing and sustaining a massive program of economic boycott.

In the 1930's the Nation, speaking through Franklin Roosevelt and the Congress, said that the growth of unions was in the national interest. This has been nowhere more true than in agriculture. Yet the Congress has failed to act.

Nationally, the farmworkers are still denied the basic liberties granted to the industrial workers in the 1930's. Farmworkers still do not have the federally recognized and protected freedom to organize into unions and to bargain with growers over the terms and the conditions of employment. Unemployment compensation, one of the nation's basic social insurance programs, is practically nonexistent in agriculture; only one State provides such coverage, Hawaii; if the great banking and corporate powers of this State are interested in the social environment of the working people, and if they really have a commitment to social and human values, let them give their prestige to the extension of unemployment insurance to farmworkers.

Only 17 States are covered by workmen's compensation with regard to agricultural workers. California, fortunately, being one of them.

Effective on February 1, 1967, Congress, for the first time, extended the Fair Labor Standards Act's minimum wage protection to farmworkers, but at a reduced level. We do not have that protection in California. We have a minimum wage for women and minors but not for male workers. While the Federal minimum is $1.60 for most covered workers, it is only $1.30 for farmworkers. Moreover, only about one-third of the farmworkers receive Federal minimum wage protection.

Farmworkers continue to live, in most cases, in inadequate housing, often without such basic amenities as running water and indoor toilets. The children of migratory laborers receive, at best, inadequate schooling and, in many cases, practically no schooling and, when there are jobs available in this highly seasonal industry, domestic farmworkers in California and many other States find themselves competing with the illegal aliens who drive down already low wages and provide a reservoir of strikebreakers.

The Bank of America, incidentally, was one of the great leading forces calling for the continuance of the bracero program which involved the exploitation of impoverished Mexicans to the end that wages were depressed by their presence in California. Fortunately, that practice no longer prevails, but not because of the assistance, but rather in spite of the opposition, of such forces in the Bank of America.

In short, the situation facing farmworkers in California and throughout the Nation is a scandal.

At a basic minimum, the following congressional action is required now:

Extension of the National Labor Relations Act to farmworkers. If necessary, I would submit that we return to some of the petitions of the Wagner Act that were not continued under the later amendments that became known as the Taft-Hartley, Landrum-Griffin laws.

Second, the requirement that all States provide unemployment insurance and workmen's compensation coverage for farmworkers.

Third, extension of Federal minimum wage coverage to all farmworkers.

Fourth, ending illegal alien entrance to California's farm labor market and insistence on the Immigration Service enforcing existing laws on aliens, a practice that might be rather embarrassing to the present Treasurer of the United States.

Fifth, provisions for expanding the housing programs for rural Americans in order to insure that all farmworkers have adequate shelter. Those of us who have gone through the agricultural fields will agree there is some excellent barrack housing, some fair housing, and some housing that is a disgrace to a nation that calls itself civilized.

Sixth, development of federally funded educational programs to provide a decent education for the children of migratory farmworkers.

Beyond this and on the focus issue of the hearing on the matter of land ownership and water distribution, I won't read from Bryce, as Paul Taylor cited the essential of this observation and spoke to the great disparity between immense land holdings and propertyless workers.

But I would get to the relationship of our organization with landownership and water usage. The California Labor Federation was founded in 1901 as a State AFL organization. Today, you will notice, it embraces 1,600,000 AFL–CIO members. There has been a continuity all through the years from the enactment of the reclamation law in 1902, under Teddy Roosevelt. We have always stood for the reclamation law with its 160-acre provision.

Labor in California has long called for economically and socially responsible policies of landownership and water usage. In 1902 Congress acknowledged the issue by writing reforms into the National Reclamation Act in the form of a 160-acre limitation on federally subsidized water deliveries to individual landowners. The U.S. Supreme Court upheld this law in 1958, in a case involving the Federal Central Valley project, and said of the acreage limitation:

> The project was designed to benefit people, not land. It is a reasonable classification to limit the amount of project water available to each individual in order that benefits may be distributed in accordance with the greatest good to the greatest number of individuals. The limitation insures that this enormous expenditure will not go in disproportionate share to a few individuals with large land holdings. Moreover, it prevents the use of the Federal Reclamation Service for speculative purpose.

I note with some interest that, among the chief opponents of this 160-acre provision has been the Bank of America. Mr. Robert Long, who has testified here this morning, refers to the limitation as petty and political, and just as the Bank of America led the fight to continue the importation of braceros, it is in the lead among those who would destroy the acreage limitation and thereby liquidate small holdings in California's agriculture.

The viability of acreage limitation is even recognized from time to time by grower publications. The California farmer is not noted for its sympathy either to the 160-acre limitation or to the union labor. It carried in its September 18, 1971, issue, the following description of California farming under the title, "Is This a New Era in California Agriculture?":

> What happens

And I am quoting,

> when irrigation water is introduced into an arid area? Does the 160-acre limitation help or hinder? What does farming become under imposed conditions? * * * In short, farming in southeast Tulare County has taken on a new glamor under the 160-acre limitation rule, or so it would seem. This has been done even in the face of the accusation that the limitation was throttling, rather than helping agriculture. * * *
>
> The quality of living, too, in this new water area is good and has become available to many people. * * *
>
> In this operation, efficiencies, usually attributed to large acreage, can be met and perhaps surpassed for an owner of less than 160 acres, while the quality of living is increased.
>
> The barren land of southeast Tulare County is fast becoming a profitable garden with high-quality living.

Less than 2 months ago, Senator, the validity of the 160-acre limitation was strongly affirmed by your colleague, Senator Fred Harris of Oklahoma, when he introduced a bill strongly supported by our California Labor Federation, AFL-CIO, by the National AFL-CIO, and by others interested in the preservation of small farming activities and quality living, to carry out the congressional intent regarding the excess lands, a provision of the 1902 act.

Now, I have here numerous references to the Senator's arguments. I would like to read from one.

> The reclamation act stated that land holders could receive federally subsidized water for farms of 160 acres of less, or 320 acres in the case of a man and wife, provided that they live on, or very near their land. In 1926, Congress strengthened the 1902 act by providing that any federally irrigated holdings in excess of the 160-acre limitation had to be sold within ten years at pre-irrigation prices.

Enforcement of this law meant the end of one of the most tenacious antilabor growers in California, the DiGiorgio Farms, which had been obliged to sell their excess land.

We are supporting the legislation that Dr. Taylor referred to, that allows the Federal Government to purchase those excess lands at the 10-year limitation time, and the revenue from the ultimate sale of those lands by the Federal Government to be used for social purposes.

We urge that a generous share of the revenues from resale or lease of land for those purchases be assigned to public purposes, particularly to education, and to the National Land and Water Conservation Fund. We urge creation of a public authority with the power sufficient to plan land use effectively in reclamation areas so to create an environmental quality. This we held with Senator Harris, who has been the principal advocate of our legislation.

As Senator Harris correctly noted:

> because of the government's outrageous record of non-enforcement of the reclamation act, more than half of the irrigated acreage in the Imperial Valley (in California) is held by owners of more than 160 acres and two-thirds of it by absentees.

We submit that is in violation of the law. We are now financing what we regard as the people's effort to stop this. We are, in part, contributing to the maintenance of the higher court tests that are involved in this case, tests to which Dr. Taylor referred.

Continuing, Senator Harris said:

> Agribusiness giants such as Purex, United Fruit, and the Irvine Land Co., which owns 10,000 acres in the valley, are reaping huge profits because of the water subsidy. Federally subsidized water is also being delivered to lands in California owned by Tenneco, Getty Oil, Standrrd Oil of California, and the Southern Pacific Railroad.

The monopolization of land and water rights by huge agribusiness has a direct bearing on the crisis in our cities and on our severe unemployment and welfare problems.

Senator, in summation, it is our view that there is a critical need to correct the imbalance of values existing in rural California and in much of the Nation.

First, there must be Federal recognition of the farmworkers' rights to organize into unions and to bargain with employers.

We would welcome the assistance of all who have an interest in agricultural life.

Second, social and economic legislation relating generally to workers must be extended to farm labor.

I am talking about unemployment insurance, minimum wage, workmen's compensation.

Third, recognition of the unique nature of farm employment, particularly legislation needed in the areas of housing and education and meaningful curbs must be placed on the employment of illegal aliens.

Fourth, Federal reclamation law must be enforced and the law should be amended to provide for Federal purchase and resale of excess lands for the social and economic benefit of all, which would mean recreational and educational facilities and services, indeed extending beyond the immediate agricultural areas.

Senator STEVENSON. Thank you, Mr. Henning, for a helpful statement.

As you know, there are efforts under way in Congress and also in some cases at the State level, to accomplish the goals which you set out in your very strong statement.

I was particularly interested, though, in your reference to the immigration and naturalization laws. As you know, under Federal law it is a crime to harbor an illegal entrant, someone who has entered this country illegally. You can keep him in the woodshed and be guilty of violating the law. But it is not unlawful to hire him. That strikes me as an anomaly in the law that is not only strange, but very significant.

I understand California has recently adopted a law which would make it illegal for employers to knowingly hire an illegal entrant. As you know, it is estimated, nobody really knows, that there may be one and a half million, maybe more, persons illegally in the United States. Many of them are from Mexico, working here and displacing U.S. citizens from jobs. Have you enough experience in California to have any opinion at this point about the effectiveness of the California law?

Mr. HENNING. Senator, it was just adopted and won't be effective until 90 days after the adoption.

Senator STEVENSON. It has not been effective yet, you say?

Mr. HENNING. No, but it will be in effect this year.

Senator STEVENSON. How effective will it be, do you think?

Mr. HENNING. It forbids the employer from knowingly hiring an illegal entrant. I presume we will have to take the employer to the authorities to prove that he knowingly hired. It has been called, if you will forgive me, a kind of a Mickey Mouse law. It lacks the kind of comprehension and rigidity we like to see in it, but it is a beginning. We think we can make it effective by having our unions police it.

I might say in this respect the United Farm Workers Organization is strongly for this law and strongly opposed to the appointment of Mrs. Banuelos, because her premises of business operation was six times raided by the Immigration authorities. It is a rather classical case. It is very hard, apparently, to prove she is as guilty as our union representatives think. But I would be pleased to submit a statement, after a reasonable period of experience in the California law. We supported the legislation, which passed, I might say, through bipartisan support.

Senator STEVENSON. There is a good prospect of getting a similar amendment adopted to the Federal immigration laws. We, of course, are working on it.

The continuing migration of people from rural America to our cities has an impact on the urban labor market. Do you have any comments you would like to make about the impacts of that migration on unemployment in the cities?

Mr. HENNING. Dr. Taylor in his paper noted the contrast between the communities of Dinuba and Arvin, the theory being that the small farm operations made farm life, rural life, something realistic. There is a place in the land for great numbers of people who are now being displaced by agribusiness. We argue with that.

We also, however, would be obliged to acknowledge that mechanization is moving people from the land, and not only in California, in the United States, but in every industrialized nation in the world. The increase in productivity rates during the last decade in agriculture, was running about 9 percent a year as against 3 percent as an average in industry overall. If that kind of thing continues, I am afraid, regardless of what we do in terms of making the land economically attractive, there will be a continuing movement of displaced workers from areas of no employment to the hope areas of urban life.

Senator STEVENSON. How do you feel about cooperatives as a means of providing job opportunities in rural America?

Mr. HENNING. If they are genuine cooperatives, we think they are quite good. I happen to have had some experience with cooperatives in other countries. I know in Israel, where I had the opportunity to study and observe rather closely the moshav, which is the cooperative farm, that common purchase of equipment and grain, common sale practices were viable and successful. I think, surely, it is an area that has to be encouraged and, where such study is needed.

Senator STEVENSON. You mentioned a disparity between the Federal minimum wage rates for the farmworkers and for other workers. Why does that disparity exist?

Mr. HENNING. We have to go back to one of the few failures, I might say, Senator, the few failures of the New Deal. Franklin Roosevelt and the New Deal powers accepted a compromise with the farm bloc and did not extend any of the social insurance benefits of the New Deal legislation to agricultural workers. He left them out of unemployment insurance, out of social security, out of the minimum wage, and out of the Wagner Act.

Now, times have changed, but the farm bloc still prevails. You couldn't get a proper measure through the Senate, if I may say that, Senator, respectfully.

Senator STEVENSON. I have tried a couple of times.

Mr. HENNING. The farm powers are quite strenuous in this matter.

Senator STEVENSON. I do think the attitudes are changing in the Senate. I think just the fact that these hearings have attracted interest is in itself significant and suggests a growing public awareness of the plight of people in rural America and the way we have discriminated against them. The farmworker, the migrant in particular, doesn't get the benefit of unemployment compensation, of all of the social and worker benefits that most of us take for granted. I have never understood the reasons for the apparent discrimination.

Mr. HENNING. We have the richest State in the Union; we have the richest agriculutural community in the Nation, and still we tolerate the social disadvantages that are imposed on farm workers. I can say, from more than 25 years of experience, that it comes down to one thing, that there are powers in California and in the Nation who argue that anything may be done in the name of economic profit.

Senator STEVENSON. It is more complex than that, too. For example, with all of the concern in the country about the alleged breakdown of the work ethic, of the concern about the rise in welfare costs, we have a group in America, the migrant, who travels the country, he follows the crops, he spends his life putting down roots nowhere, but travels everywhere searching for work. He, more than any other group in our society, is discriminated against. He is left out. That I find very difficult to accept or understand.

Thank you, again, Mr. Henning. Your testimony has been very helpful. Thank you very much for appearing here this morning.

(The prepared statement of Mr. Henning follows:)

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Statement before the

U.S. Senate Subcommittee on Migratory Labor
of the
Committee on Labor and Public Welfare

by

John F. Henning, Executive Secretary-Treasurer
California Labor Federation, AFL-CIO

San Francisco
January 11, 1972

My name is John F. Henning. I am the Executive Secretary-Treasurer of the California Labor Federation, AFL-CIO. Our organization represents more than 1.6 million union members in California.

We welcome this Subcommittee to California, for in this state farm workers and their families have long suffered the social and economic hardships of seasonal employment and migration.

The farm labor tragedy is inconsistent with professed national ideals, and has been so recognized throughout all of this century.

Since 1901 a long series of Commissions, federal and state, has studied, reported and recommended what to do to protect migratory seasonal workers and bring them closer to the national ideal. A partial list of federal commissions includes the Immigration Commission of 1911; the Industrial Relations Commission of 1916; the LaFollette Subcommittee of the Education and Labor Committee to investigate "violations of free speech and assembly and interference with the right of labor to organize and bargain collectively" in the late 1930's; the Tolan Committee on Interstate Migration of Destitute Citizens; President Truman's Commission on Migratory Labor in American Agriculture; and now the Senate Subcommittee on Migratory Labor.

Only a few of the recommendations from the past have been adopted. Old age insurance has been extended, and to a very limited degree the federal minimum wage law. Farm workers remain, however, basically deprived, except where they have become union members.

In the final analysis the only way farm workers can achieve an adequate standard of living is through unionization. We need something like the great union organizing drives of the 1930's which lifted millions of unskilled industrial workers out of poverty.

The United Farm Workers Organizing Committee, AFL-CIO, has been notably successful in its efforts, despite the relentless opposition of powerful agricultural interests, here in California and elsewhere. The struggles of the UFWOC can only be described as heroic, as its leadership and membership have traveled to the far corners of the nation developing and sustaining a massive program of economic boycotts.

The UFWOC has grown from its fledgling status of six years ago to a position where it represents thousands of farm workers having contracts with major growers. It is basic to the development of a reasonable balance between growers and farm workers that the growth of the UFWOC continues. We in the California labor movement and fellow AFL-CIO unionists throughout the nation will do our part to insure this growth.

In the 1930's the nation, speaking through Franklin Roosevelt and the Congress, said that the growth of unions was in the national interest. This has been nowhere more true than in agriculture. Yet the Congress as a whole has failed to recognize this elementary fact.

Nationally, farm workers are still denied the basic liberties granted to industrial workers in the 1930's. Farm workers still do not have the federally recognized and protected freedom to organize unions and to bargain with growers over terms and conditions of employment.

Unemployment compensation, one of the nation's basic social insurance programs, is practically non-existent in agriculture.

In California farm workers are covered by workmen's compensation. Only 12 other states and Puerto Rico provide such coverage. More than two-thirds of the states provide no workmen's compensation coverage for farm workers despite the fact it is a highly hazardous occupation.

Effective February 1, 1967, Congress, for the first time, extended the Fair Labor Standards Act's minimum wage protections to farm workers, but at reduced levels. While the federal minimum wage is $1.60 for most covered workers, it is now only $1.30 for farm workers. Moreover, only about one-third of the nation's farm workers receive even this inadequate protection.

Farm workers continue to live, in most cases, in inadequate housing, often without such basic amenities as running water and indoor toilets. The children of migratory workers receive at best inadequate schooling, and in many cases, as a practical matter, receive no schooling at all. And when there are jobs available in this highly seasonal industry, domestic farm workers, in California and many other states, find themselves competing with illegal aliens who drive down already low wage rates and provide growers with a ready reservoir of strikebreakers

In short, the situation facing farm workers in California and throughout the nation is a scandal.

At a basic minimum the following Congressional action is needed now:

1. Extension of the National Labor Relations Act to farm workers.

2. Requirement that all states provide unemployment insurance and workmen's compensation coverage for farm workers.

3. Extension of federal minimum wage coverage to all farm workers.

4. Ending illegal alien entrance to California's farm labor market and insistence that the Immigration Service enforce existing laws on aliens.

5. Provision for expanded housing programs for rural America in order to insure that all farm workers have adequate shelter, as measured by the standards of 1971, not 1901.

6. Development of federally-funded educational programs to provide a decent education for the children of migratory farm workers.

Beyond these immediate protections for farm workers, it is imperative that Congress face the issues of land ownership and water distribution.

Here we are concerned with the relationship between those who labor on the land and the massing of the poor and unemployed in the cities. The relationship has prevailed for decades, largely because private speculation has determined the use and distribution of our land and water resources.

More than 70 years ago the distinguished foreign observer, James Bryce, noted the essentials of the California land and labor crisis. In his monumental American Commonwealth, Lord Bryce wrote:

> "When California was ceded to the United States, land speculators bought up large tracts under Spanish titles, and others, foreseeing the coming prosperity, subsequently acquired great domains by purchase, either from the railways which had received land grants, or directly from the government. Some of these speculators, by holding their lands for a rise, made it difficult for immigrants to acquire small freeholds, and in some cases checked the growth of farms. Others let their land on short leases to farmers, who thus came into a comparatively precarious condition; others established enormous farms, in which the soil is cultivated by hired labourers, many of whom are discharged after the harvest -- a phenomenon rare in the United States, which is elsewhere a country of moderately sized farms, owned by persons who do most of their labour by their own and their children's hands. Thus, the land system of California presents features both peculiar and dangerous, a contrast between great prosperities, often appearing to conflict with the general weal, and the sometimes hard pressed small farmer, together with a mass of unsettled labour, thrown without work into the towns at certain times of the year."
>
> (Bryce, American Commonwealth, II, 427. (1913 2d.)

Organized labor recognized this problem promptly as it emerged, but for too long our counsel has gone unheeded. In May, 1878, the platform of the Workingmen's Party of California declared that "the public lands are the heritage of the people, and should be donated to actual settlers in limited quantities," that "no land or other subsidies should be granted to any corporations," that "land grabbing must be stopped," and "land monopoly must be restricted and in future prohibited." (Quoted in J.C. Stedman and R.A. Leonard, The Workingmen's Party of California.)

Labor in California has long called for economically and socially responsible policies of landownership and water useage. In 1902 Congress acknowledged the issue by writing reforms into the National Reclamation Act in the form of the 160-acre limitation on federally subsidized water deliveries to individual landowners. When the United States Supreme Court upheld this law in 1958 in a case involving the Federal Central Valley Project, it said of the acreage limitation:

"The project was designed to benefit people, not land. It is a reasonable classfication to limit the amount of project water available to each individual in order that benefits may be distributed in accordance with/the greatest good to the greatest number of individuals. The limitation insures that this enormous expenditure will not go in disproportionate share to a few individuals with large land holdings. Moreover, it prevents the use of the Federal Reclamation Service for speculative purpose (Ivanhoe vs. McCracken, 357 U.S. at 297.)

The viability of acreage limitation is even recognized from time to time by grower publications. The California Farmer, not noted for its friendliness to either the 160-acre limitation or to organized labor, carried in its September 18, 1971 issue the following description of California farming under the title: "Is This a New Era in California Agriculture?":

> "What happens when irrigation water is introduced into an arid area? Does the 160-acre limitation help or hinder? What does farming become under imposed conditions? ... In short, farming in southeast Tulare County has taken on a new glamor under the 160-acre limitation rule, or so it would seem. This has been done even in the face of the accusation that the limitation was throttling, rather than helping agriculture ....
>
> "The quality of living, too, in this new water area is good and has become available to many people ...
>
> "In this operation, efficiencies usually attributed to large acreage can be met and perhaps surpassed for an owner of less than 160 acres, while the quality of living is increased.
>
> "The barren land of southeast Tulare County is fast becoming a profitable garden with high quality living."

Less than two months ago the validity of the 160 acre limitation was strongly affirmed by your colleague Senator Fred Harris of Oklahoma when he introduced a bill strongly supported by the California Labor Federation, AFL-CIO, and the National AFL-CIO (S. 2863) which would establish a

Reclamation Lands Authority to carry out the congressional intent regarding the excess lands provisions of the 1902 Reclamation Act. On introducing the bill on November 16, 1971, Senator Harris observed:

> "Our predecessors in Congress, recognizing that irrigation is essential to American agriculture, wisely chose to make a public investment in irrigation when they passed this historic 1902 act. Just as wisely, they sought to assure that the benefits of federal irrigation projects -- which would literally transform desert wastelands in the West to the richest agricultural areas in the world -- would accrue to small homesteaders rather than land speculators or monopolists.
>
> "The reclamation act stated that land holders could receive federally subsidized water for farms of 160 acres or less, or 320 acres in the case of a man and wife, provided that they live on, or very near their land. In 1926, Congress strengthened the 1902 act by providing that any federally irrigated holdings in excess of the 160-acre limitation had to be sold within 10 years at pre-irrigation prices.
>
> "Critics of the acreage limitation provision, both in 1902 and today, insists that huge farms are necessary for their efficiency. That is a myth. The giant agribusinesses are efficient only in stifling farm competition and in tapping the federal treasury for subsidies. 160 acres of prime irrigated farm land or 320 acres in the case of man and wife, are more than enough to support a prosperous family farm." (Congressional Record November 16, 1971, Page S18638-9).

Senator Harris went on to point out that the men who championed the Federal Reclamation Act of 1902 were "visionary Americans" in that they understood that land and water were not boundless and must be protected from the few who would monopolize their use.

But, he observed:

"Today, nearly two centuries after Jefferson and 70 years after the passage of the Federal Reclamation Act, agrarian democracy exists only as a myth. America's land, once publicly owned, and the federally financed water used to irrigate much of it, are illegally in the control of large land interests."

Noting that these large land interests have always opposed enforcement of the reclamation act's anti-monopoly provisions and have used various devices to get around the 160-acre limitation, Senator Harris said:

"What is surprising is the federal government's acquiescence in what amounts to a giant land steal and a raid on the public treasury."

Our California Labor Federation had this in mind at its 1970 biennial convention when delegates adopted a policy statement on natural resources which heartily concurred in the recommendation of the National AFL-CIO "that the government purchase excess land at the prewater price set by present law, taking note of the estimate that in California alone, there are 900,000 acres owned in excess of the legal limit.

"We urge that a generous share of the revenues from resale or lease of land so purchased be assigned to public purposes, particularly to education and to the National Land and Water Conservation Fund. We urge creation of a public authority with the power sufficient to plan land use effectively in reclamation areas and so to create an environment of quality," the statement said.

As Senator Harris pointed out, federal reclamation projects have resulted in delivery of water to eight million acres with an annual crop value of $1.7 billion.

Moreover, Congress has appropriated or authorized spending $10 billion on reclamation projects and it has been estimated that the amount of subsidy to western landowners for irrigation ranges from $600 to $2,000 per acre.

At present this huge public investment is channeling millions of acre feet of water to hundreds of thousands of acres of land owned by giant corporations instead of to a growing number of independent family farmers as the law intended.

As Senator Harris correctly noted, "because of the government's outrageous record of non-enforcement of the reclamation act, more than half of the irrigated acreage in the Imperial Valley (in California) is held by owners of more than 160 acres and two-thirds of it by absentees. Agribusiness giants such as Purex, United Fruit, and the Irvine Land Company, which owns 10,000 acres in the valley, are reaping huge profits because of the water subsidy. Federally subsidized water is also being delivered to lands in California owned by Tenneco, Getty Oil, Standard Oil of California and the Southern Pacific Railroad," he pointed out.

The monopolization of land and water rights by huge agribusiness interests has a direct bearing on the crisis in our cities and on our severe unemployment and welfare problems.

The Reclamation Lands Authority Act introduced by Senator Harris and co-authored by Senator Alan Cranston of California is strongly supported by the California AFL-CIO because it could serve as a beginning of a national rural policy that could give the independent family farmer, our veterans and economically disadvantaged citizens as well as the general taxpayer an opportunity to reap some return from the vast public investment in reclamation projects.

Under the proposed Reclamation Lands Authority Act, 70 percent of the revenues derived from it would be earmarked as grants for public education. Another 10 percent would go into the already existing Land and Water Conservation Fund and the remaining 20 percent would be used to develop public facilities servicing project areas and to promote economic opportunities for veterans and persons living in substandard conditions. Similar legislation has been introduced in the House of Representatives and six of the seven sponsors of the House bill are California Congressmen.

We trust that Senate hearings will soon be held on this legislation. Adoption of such a bill can mean opportunity on the land for many, including farm workers, and it can retard the flow of landless, jobless and destitute persons into our cities.

Theodore Roosevelt, as President, insisted upon inclusion of acreage limitation provisions in the original reclamation law that he signed in 1902. Nine years later, speaking at the Commonwealth Club in San Francisco, he justified the limitation in words going far beyond questions of either "efficiency" or the equity of preserving opportunity on the land for those who work upon it. He said:

> "Now I have struck the crux of my appeal (for the excess land law). I wish to save the very wealthy men of this country and their advocates and upholders from the ruin that they would bring upon themselves if they were permitted to have their way. It is because I am against revolution; it is because I am against the doctrines of the Extremists, of the Socialists; it is because I wish to see this country of ours continued as a genuine democracy; it is because I distrust violence and disbelieve in it; it is because I wish to secure this country against ever seeing a time when the 'have-nots' shall rise against the 'haves'; it is because I wish to secure for our children and our grandchildren for their children's children the same freedom of opportunity, the same peace and order and justice that we have had in the past." (7 Transactions of the Commonwealth Club 108 (1912-13.)

In summary it is our view that there is a critical need to correct the imbalance of values existing in rural California and much of the nation. First, there must be federal recognition of the farm workers' rights to organize into unions and bargain with employers.

Second, social and economic legislation relating generally to workers must be extended to farm labor.

Third, in recognition of the unique nature of farm employment, particular legislation is needed in the areas of housing and education and meaningful curbs must be placed on the employment of illegal aliens.

Fourth, federal reclamation law must be enforced and the law should be amended to provide for federal purchase and resale of excess lands for the social and economic benefit of all.

* * * *

Senator STEVENSON. Our next witness will be Dr. William Friedland, University of California at Santa Cruz.

Dr. Isao Fujimoto is not able to be with us today.

Dr. Friedland, you may proceed with your statement.

STATEMENT OF DR. WILLIAM FRIEDLAND, PROFESSOR OF COMMUNITY STUDIES AND SOCIOLOGY, ADLAI E. STEVENSON COLLEGE, UNIVERSITY OF CALIFORNIA AT SANTA CRUZ, CALIF.

Dr. FRIEDLAND. Senator, Professor Fujimoto has asked that I convey his apologies for his absence. He has been involved in a project activity at Davis that makes it impossible for him to attend.

I will enter my statement in the record with your permission.

Senator STEVENSON. It will be accepted and inserted following your testimony.

Dr. FRIEDLAND. I would like to summarize some points from the statement.

My involvement in the issue raised in your letter of invitation to participate in these hearings is focused on the question of whether or not our Government policies and programs are meeting and serving the needs of all the people in rural America.

My work has not been primarily in the State of California; it began in New York State when I was a member of the faculty at Cornell University. I was at that time struck by the conditions of migratory farmworkers in the State of New York in the area surrounding Cornell University. When I began my study I found, among other things, that Cornell University was itself an employer of migratory farmworkers.

As I studied migratory labor with my students, we discovered an interesting fact: that the system of migratory labor in New York State, far from being effective and productive, was just the opposite. It was ineffective and unproductive; it was wastefully managed and wastefully organized.

I pondered on the problem as to why this system continued if it was so wasteful, especially since many farmers I had talked to had themselves condemned the system of migratory labor, a system that has been exposed many times in previous hearings of this subcommittee. As we spent more time studying this system, I came to the conclusion that one of the agencies of the U.S. Government is a primary institutional support of the migratory labor system in the East. This is the Farm Labor Service of the U.S. Department of Labor. We found that farmers depended upon this service, and this service, in turn, depended upon and supported the crew leader system in eastern migratory labor. It is the crew leader system that is primarily responsible for the unproductiveness and inefficiency as well as for the exploitation which exists of migratory farmworkers in the East.

After working on this subject in the East for some time, I had the opportunity to spend a year in California. During this year I discovered that the Farm Labor Service, far from being a wholly admired and respected agency of government in the State of California, was considered rather negatively not only by farmworkers but, indeed, by some growers. I again puzzled on that issue, and it is quite clear to me that the institutional networks of agriculture have made the Farm Labor Service a part of themselves, and, consequently, sustain this service even though, as your first witness this morning said, the Farm Labor Service is relatively useless to him.

This finding, by the way, has been sustained by studies as to who uses the Farm Labor Service. It was sustained in a study conducted by the State of California some time ago. This showed that few farm workers use the Farm Labor Service to find their employment.

This is one way in which I discovered how American policies, governmental policies and programs——

Senator **Stevenson**. Let me interrupt, if I may, at this point. Who does use the Farm Labor Service?

Dr. **Friedland**. Who does use it? I think that the employees of the Farm Labor Service use it. That is to say, most growers I have had the opportunity to talk to seem to place relatively little dependence upon the Farm Labor Service to find sources of labor. Some people do, unquestionably. But the Farm Labor Service, it seems to me, has become essentially a self-serving bureaucracy which is part of the agricultural establishment.

Senator **Stevenson**. It is part of the agricultural establishment, and you do say some people use it. Are you suggesting that the family farmer, the small farmer, does not typically use it, but that large agribusiness does?

Dr. **Friedland**. I cannot speak on this in California because I did not study this in California. In New York State, contacts are utilized by most growers, large or small. But the linkages of farmer-to-Farm Labor Service, Farm Labor Service to crew leader, and the crew leaders, of course, are the key to the entire system. In other words, the Farm Labor Service, in the East, does not seek to establish relations directly between the farmer and the farmworker. They go via the crew leader, and the entire system is organized that way. It is this fact which gives the crew leader his particular institutional power. At the same time the crew leader has relatively few managerial skills; this is one of the sources of tremendous frustration by growers.

Senator **Stevenson**. Why is that? Is there any reason why the farm worker, as opposed to the crew leader, can't maintain that contact with Farm Labor Service?

Dr. **Friedland**. There are many reasons, Senator. One of the reasons is that most farmworkers in the East, until recently, were black farmworkers. Many of them were relatively uneducated; many of them had no contact or experience with instrumentalities of the American Government. Where they have had that contact, they are suspicious and afraid. The crew leader, in contrast, stands as a key element articulating between the farm worker, who doesn't know his way around the system, and the system itself.

Senator **Stevenson**. And you are suggesting that the Farm Labor Service does nothing to overcome the lack of political sophistication or whatever of the farmworker; it doesn't make any effort to bypass the crew leader to reach directly to the farmworker?

Dr. **Friedland**. If it did any such thing in the East, I certainly did not encounter it in my experience.

One of my students, for example, trying to enter farm labor, a black student by the way, went into a Farm Labor office in New York State. He was not referred to a farmer directly, he was referred to a crew leader.

Senator **Stevenson**. It might be helpful, for the sake of the record, to describe the crew leader system.

Dr. **Friedland**. The crew leader system is a system which originates in Florida when the Florida season comes to an end. The crew leaders recruit their workers primarily in Florida, although many of them make sweeps through towns on the way north.

Senator **Stevenson**. You are not confining it to Florida, it is certainly prevalent in Texas at the border?

Dr. **Friedland**. Yes, but I am dealing primarily with the crew leader system with which I have had experience, which is in the East. I have not worked in any significant way with the Midwest stream of agricultural labor.

The crews are constituted as they are assembled. Some of them consist of new workers who have never had any contact with the crew leader or other members of the crew before. Some of them may have worked with this crew leader for years. The crews move north and when they come into New York State, for example, they settle into camps generally owned by a farmer. The crew leader then becomes the overall boss of that crew. He is their foreman, their banker, their provisioner. Hs is the purveyor of alcohol. He frequently takes a cut on a variety of illegal activities, such as the sale of alcohol and the sale of women since that also takes place. Of course he is a banker; he lends money directly or extends a line of credit to farmworkers. He maintains a record of these loans and of the workers' earnings and at the end of a season or at the end of a week he ostensibly makes an accounting and gives them some cash.

This is a terribly exploitative system that has been exposed over and over again and yet it continues to exist. It is my contention that one of its primary bastions is the Farm Labor Service, an agency of the U.S. Government and of the States.

If I can continue with respect to a second point, I would like to depart from the thrust of my statement to deal with some of the arguments that have been made here today.

I know relatively little about issues of land ownership or water. I must acknowledge the great expertise of Paul Taylor, who has devoted his life to this subject, for the little knowledge that I have on the subject.

But I do have some experience, as a participant in universities for many years and through my research in the East on migratory labor. This experience is with what might be called the knowledge industry, that is to say, how information gets produced which is of use to the world.

That knowledge industry is an institution of which I am a part. One of its major embodiments is the university. The knowledge industry which affects American agriculture was initiated in the Morrill Act. This act gave rise to the land grant colleges and subsequently to what I will call the agricultural research establishment in the U.S. Department of Agriculture and the agricultural experiment stations and agricultural extension services in the States. This institutional network serves three basic functions of producing knowledge, people who will use this knowledge, and the diffusion of this knowledge.

This network, in my opinion, has contributed, to a considerable degree, to the shift of population from the rural to the urban sector.

Now, rural-to-urban shift is not a new phenomenon, it is worldwide. It is caused by a complex of reasons. But the knowledge generated by this agricultural research establishment has been geared largely toward making labor more efficient, making labor more productive, reducing the cost of labor, and reducing the quantity of labor. This knowledge has contributed, therefore, to reducing the numbers of people that have been working on the land and who can make a living from the land.

As you yourself pointed out, Senator, the rural population has been decimated in the United States; so has rural social structure.

I want to deal with only one aspect of that decimation, the effects of research. I want to point out one significant fact: If one considers the University of California, only one element of the knowledge industry, you will find in the budget of the university for 1971, a budget of $23 million for organized research in agriculture. Organized research is only one single category, Senator; there are many other categories, and working your way through this kind of information is, believe me, a full-time activity, and I have not been able to devote full time to it.

If you take only organized research projects, $21 million, probably much less than 5 percent will be devoted to human social questions. If you take just the raw figures, where the money goes by department, just over 95 percent of it, goes into the technological area. If this were able to be broken down project by project, my estimate is, that we would probably be lucky to find 1 or 2 percent being used for human-social research. This means that research is geared mainly at producing more efficiency, more effectiveness of labor and reducing the work required. Much of this research, therefore, contributes to the reduction of the rural population.

Much of this knowledge generated by this knowledge industry, I would contend, is distributed primarily to large-scale growers. Not that it is unavailable to small growers, it is just that it is less available.

When one turns to the human and social aspects, we discover that certain questions that have been raised at this hearing today cannot be answered. Why is it, Senator, that it is so difficult to find out who owns the land? Why is it that the Bank of America finds it so difficult to know where its loans go by size of operation?

The answer is not accidental; it is not random. Knowledge is not produced at random; knowledge is produced, I suggest, as a result of investment. If I, for example, were to seek funds to conduct a study on how land is owned in the State of California or how the Bank of America extends its credit, I fear that I would not find many granting institutions willing to support that particular study. We study, in other words, where the money is, and the money, I fear, has not been in this particular area. How do we know what things can be studied and what should be avoided? Senator, there is a complex, informal network that tells us where you can succeed in doing research and where we cannot.

Paul Taylor talked about the Arvin and Dinuba study. There is scarcely a person who has spent 15 minutes studying the issues of agricultural labor in the United States who has not learned of the experience of Walter Goldschmidt in conducting the Arvin-Dinuba study. Walter Goldschmidt was harassed, persecuted, and soon learned that it was far better to be a traditional anthropologist than to continue the useful work he had been doing dealing with rural social structure in the United States.

I refer you to an article by Richard Kirkendall, "Social Science in the Central Valley of California: An Episode", *California Historical Society Quarterly*, 1964, pp. 195–218. This article documents the harassment that Dr. Goldschmidt confronted. His experience enters into our consciousness as scholars, Senator, and we consequently say, well, it is too difficult to hassle, let's choose something else, and we do.

I would cite to you, for example, my personal experience. My personal experience was one in which I obtained support by the U.S. Department of Labor and the New York State College of Agriculture at Cornell. But I was informally told by the U.S. Department of Labor: We are not interested in migratory workers except in settling them out of the stream. I was told informally that the condition of migratory workers is just so miserable, that we are dealing with such powerful interests, the only thing we can do is get migrants out of the stream, settle them down. That, I think, was a realistic perception of the facts. When I received support through the College of Agriculture, I was informally given to understand, because no deliberate statement was made to that effect, how delicate this area was, how careful one should be in dealing with the area.

Finally, it was made clear to me, again although nobody said anything in specific terms, how vulnerable I was to being cut off from support. It was this, of course, that led me personally to search for support outside governmental sources.

I want to conclude my comments by pointing out that knowledge gets produced according to where the investments are made. If you want answers to some of the questions that have been unanswered here today, then it is necessary for investment to be made in the accumulation of that knowledge.

Now, I am not trying to be self-serving here, although I am a researcher; but I would contend that until there is a separate institutional device within the framework of American government, a separate device funding agricultural research and extending it, we will be unable to make changes in the way in which knowledge is produced. It is, in my opinion, almost hopeless to expect the U.S. Department of Agriculture and the complex formal and informal network built around the Department's research units, the agricultural extension services, and the agricultural experiment stations to make changes so that we can understand better what is happening to rural social structure.

If 5 percent of the University of California's budget for organized research were to be devoted to human and social questions, we would have a lot more answers to today's unanswered questions.

I would like to make one offer in conclusion, Senator. I don't know if I really can live up to this offer, but I strongly suspect that I can. If the Bank of America will open its books and make a small sum of money available—I am not quite sure how much that would be, but I would estimate we could probably do it for between $10,000 and $15,000—we could probably assemble a good and responsible group of scholars to do a study of the Bank's operations, to find out how loans are made. I have reason to believe that such a study would be possible, and I would like the opportunity, despite the fact that I am a sociologist not an agricultural economist, to conduct such a study. Unless something happens in the next few years, there will be little rural social structure left.

Senator STEVENSON. If that is an invitation, I think we might convey that to the Bank of America.

Referring for a moment to the crew leader system, Dr. Friedland, I understand that in the Gomez case, a Federal court recently ruled against a crew leader who transported and reduced farmworkers in the East. The case involved charges that the crew leader held workers in involuntary servitude. There are black crew leaders, there are white crew leaders. Are there also racial overtones to the crew leader system?

Dr. FRIEDLAND. Race is one of the key institutional supports of the crew leader system in the East. I do not have exact data with me, but, if memory serves me correctly, well over 50 percent of the migratory workers in the East are black. Race becomes a key factor in the migrant labor system because there has to be a gatekeeper, a broker, between the world of the white grower and the white agricultural community and the black agricultural workers. The black agricultural worker, on the whole, knows little about functioning in white northern society. All the experiences my students had in agricultural camps in the East demonstrated this fact over and over again. In effect, the crew is surviving in what can be defined as a hostile environment. Basically, there is one person who knows how to function in that environment, the crew leader. This gives him his great power, not only over the crew members in their daily activity, but to exploit those workers.

Senator STEVENSON. The suggestion has been made repeatedly in our hearings that the publicly supported land-grant colleges have a bias toward agribusiness and against the small farmer. In fact, it's been estimated that one machine developed by one college will displace 50,000 farmers in just one State in the very near future, the State of North Carolina. The machine is the tobacco harvester.

You said that 95 percent of the agricultural work of the University of California goes into technology, much of it into machines. Maybe 2 percent is put into the social needs of the people in rural America. Why is that?

We were talking a little earlier about interlocking directorates. Is the same thing at work in land grant college policies? Are they dependent on agribusiness for much of their financial support, is that part of it? Are there interlocking directorates here, too, board members of the University of California or other colleges who also serve on agribusiness corporations, who tend to influence the policies of the colleges?

Dr. Friedland. There are some interlocks, Senator, but I really don't regard myself as very expert on this question. It seems to me that the interlocking is, in a sense, more informal and less direct. The interlock takes place, it seems to me, through the extensive network of informal relations that exist between, let us say, faculty members in the colleges of agriculture who conduct research on these questions, agricultural extension agents, and growers.

In my experience—and this experience is limited—agricultural extension agents have contacts primarily with larger-scale rather than smaller-scale growers, and the problems of large-scale growers get built into the research network.

I would point out that many developments that have taken place have been geared to deal with special problems existing in the labor force. In California, for example, the tomato harvester was developed at the University of California at Davis; that tomato harvester just sat around until 1964. In 1964 the percentage of machine harvesting of tomatoes began to increase dramatically, such that, within 3 or 4 years, roughly 75 to 85 percent of the tomato harvest had been mechanized.

What happened in the magic year 1964? 1964 marked the end of the bracero program. Now, it is not simply the development of the tomato harvester which was a major breakthrough in technology; a variety of other kinds of research was necessary. The geneticist, for example, had to breed tomatoes with a tougher skin.

Senator Stevenson. We politicians are getting scared to go out and stump any more. If somebody throws a tomato at us, we might get seriously injured.

Dr. Friedland. If somebody throws one of those new tomatoes, you might get badly injured.

The geneticists have not only been working on skins but have revised the shape of the tomato. Instead of being round therefore more subject to breaking up, they have become ovular, pear shaped. The result is that they don't break up in the mechanical harvester as much.

These trends on the whole have benefited the large grower rather than the small one. The tomato harvester is an expensive piece of equipment. I don't know the extent to which the Bank of America has extended lines of credit to small tomato growers, but my impression is that this particular phenomenon has had a significant effect mainly towards large growers.

Let me make an additional point. Technological innovation changes social structure.

I do not have details in this because I have not been able to conduct research, but I believe what happened in tomato harvesting in California was to cause a shift from single males to housewives. Housewives entered the labor force for a relatively short harvest season. That might be a good thing or a bad thing. I have no idea. One does not know, what the results or the consequences were for social structure of this particular innovation. But it certainly would enhance our knowledge of rural social structure if we did know.

Take, for example, an issue discussed earlier today, that family farms are now incorporating at an increasing rate. While I am not an agricultural economist, I suspect that this is happening because you get better tax breaks as a result of Federal and State Policies.

Whatever the cause may be, it is a fact that family farms are incorporating more and more. What are the consequences on rural social structure as more family farms incorporate? I haven't the vaguest idea, nor, to my knowledge, does anybody else. If we incorporate the family farm and pop becomes the chairman of the board and junior becomes the manager, when pop becomes economically inactive but is still the chairman of the board, will this affect family relations, will it affect the kinship group? I have no idea, but don't you think, Senator, if we are ever to understand rural social structure, that we had better understand the consequences of tax policies on incorporation and on the rural family? It seems to me that that is rather important. I know of no research going along those lines and it seems to me that that is a relatively dangerous area to get into. It seems to me that we would learn a great deal about rural social structure if, instead of the agricultural economists studying the relative cost of efficiency of packing a crop with this piece of machinery as against that piece of machinery or this technique as against that technique, those agricultural economists would spend some time doing a study of how the Bank of America extends its credit, where credit goes, how land is owned, and the effects of farm incorporation.

American rural sociologists know more about land reform in countries outside of the United States than inside the United States.

Senator **Stevenson**. I think that is a primary question that we should be concerned with, the incorporation of the family farm and its possible effects on the family unit and on rural society and try to look into it.

We are running out of time, so let me ask you one more question. You have talked about the impact of technology in rural America. Can you tell us anything about the impact of agricultural technology on the consumer, the nutritional value and the taste of vegetables developed, like the tomato to be picked and perhaps not to be eaten?

Dr. **Friedland**. I am afraid I can answer that more as a practitioner, not as an expert, although I do follow some of these matters. What has happened, it seems to me, is that the quality of life in this respect has declined. In dealing with mass production, with large aggregates where production units have to produce on fixed schedules, we do not get the efficiency of small-scale operation that Mr. Berge Bulbulian testified to earlier. We get large-scale production units which produce crops that must ripen on the way to market rather than on the vine. It seems to me that this has produced a decline in the quality of life.

My wife and I had an unusual experience the other day when we received a Christmas package of pears. This was the first time we have eaten pears that we felt to be edible in roughly 3 or 4 years. I am dealing with subjective factors here, Senator, and I am not trying to put this forward as an objective study, but I honestly must say I had not eaten a decent pear in years, this is the first time in a long time.

I puzzled about how, in effect, one group of growers could do this, and I don't know the answer to that question, but it is apparently possible.

Senator STEVENSON. What has happened to the farmers' market? That used to be a great institution for the farmer and the housewife, didn't it?

Dr. FRIEDLAND. The farmers' market, at least, in my experience in California, has been converted to a flea market where you can pick up all kinds of junk. I have not seen a genuine farmers' market in a long time. What used to be called "truck farming" when I grew up has practically disappeared. This is a small unit producing for a local market where you get roughly a day or two between the harvest and the consumption of the crop.

Senator STEVENSON. Thank you, Dr. Friedland. Your remarks have been most enlightening, helpful, and challenging. I appreciate the effort and thought you have put into these vital issues.

(The prepared statement of Dr. Friedland follows:)

STATEMENT TO THE SENATE SUBCOMMITTEE ON MIGRATORY LABOR

January 11, 1972

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My interest in addressing this Subcommittee originates in a study that was conducted for over three years while I was a member of the faculty of Cornell University. This was a study of migratory labor in New York and New Jersey and its outcome convinced me, in terms of the purposes of these hearings, that "our government's policies and programs" were not "meeting and serving the needs of all the people of rural America." If I can summarize the findings of this project, I would state them as follows:

*Migratory agricultural labor in the northeast is inefficient and unproductive; it is wastefully managed and incredibly exploited.

*The basis for this system rests on the dependence that most growers have developed on the Farm Labor Service, an agency of the United States Employment Service.

*The Farm Labor Service, concerned primarily with providing adequate labor for growers, supports and sustains the crew leader system.

*The crew leader system is the primary cause of inefficiency, lack of productivity, and exploitation.

My point is to indicate that an agency of the United States Government has become a major institutional support of a discredited system that even growers consider wasteful and unproductive. No one seems to know how to change this system; indeed, the prevailing view in the east was that the problem would be resolved by the system ultimately withering away. The prevailing view was that the present system could not be changed through any conscious deliberate rational act. This attitude was taken because most people involved believed it was impossible to change the federal and state bureaucracies involved and that the institutional supports provided to these bureaucracies through the political interests of organized farmers were too strong to be overcome.

While I did not study how research is conducted in agriculture, it is impossible to study what we did without learning a great deal about organized research in agriculture, most of which is supported through public funds--federal and state.

Agricultural knowledge is handled through three inter-linked structures: the colleges of agriculture, the agricultural experiment stations, and agricultural extension. Over the past hundred years, this has emerged as an effective and powerful set of institutions geared at developing new knowledge, training experts in that knowledge, and extending that knowledge to farmers--the traditional functions of research, teaching and service. While these institutions are most impressive, I would contend that:

1. Government policies and programs have contributed significantly to encouraging rural-to-urban migration. While rural-urban migration is a world-wide phenomenon and is due to a complex set of causes, government policies in agriculture have exacerbated and encouraged these trends.

2. Government policies and programs have not served all of the people of rural America. They certainly have not served those that wished to remain in agriculture but who have had to leave agriculture and the rural sector.

3. Government policies and programs have served primarily privileged sectors within agriculture--whether those sectors were rural or urban. Policy has neither strengthened the rural community nor obtained a better distribution of income within agriculture. Our policies have resulted in the increase in size of production units, the requirements for larger capital investment, the creation of highly stratified and differentiated production units, and vertical integration between production, packing, and distribution of agricultural products.

In a word, government policy has contributed to agglomeration and concentration, and thereby contributed to a weakened rural social structure in the United States.

Let us consider how government policies have produced these consequences. The bulk of research, current and past, is devoted to studies of technology--what might be called the "hard" scientific approach. Relatively little has been spent or is being spent on the so-called "softer" side--the human and social elements of agricultural and rural life and, perhaps even more important, the consequences of technological innovation.

In the University of California system, which I believe to be typical of the agricultural research establishment in the United States, in 1971, of a budget of over $21 million for organized research, less than 5% will probably be devoted to human-social questions; indeed, this percentage will probably be significantly lower.

The issue of the imbalance between technological versus human-social is raised because the agricultural research establishment--if I may use a sociologically descriptive term--has been institutionally disinterested in the consequences of their work for rural social structure. Through the development of a host of biological, chemical and engineering resources, the agricultural research establishment has effectively served the privileged sectors of agriculture, either ignoring the less privileged or, in many cases, actually doing damage to these sectors. Relatively little has been done, for example, to deal with the low-income sector of rural society. If we consider the support reported in 1970 by the United States Department of Labor--an agency relatively concerned about agricultural labor--to 'farm workers and the rural areas,' we find that only five projects (of which two supported my work at Cornell) had policy implications intended for farm workers as farmworkers. This compared to 13 projects devoted to various phases of settling farm workers out of agriculture. The major beneficiaries of 26 other projects were geared toward groups other than farm workers. I have not had an opportunity to study the situation in the United States Department of Agriculture but my opinion is that they have been much less concerned than the United States Department of Labor about rural farm workers.

It is a peculiar fact that United States rural sociology--supposedly concerned about rural social structure--probably knows far more about land reform in countries outside of the United States than inside. This is not accidental, in my opinion, but a product of how knowledge and information gets produced. Rural sociology has occupied a marginal status within the colleges of agriculture; it has been tolerated, I would contend, only by its learning to ignore the demise of rural society and community in America. Agricultural economics has also developed considerable emphasis on non-United States problems; but where there has been work in the United States it has focused on issues concerned with the relative costs and efficiencies of differing techniques or innovations rather than on policy issues of the distribution of income to different sectors within agriculture.

But where has research--and implementation through agricultural extension--been with respect to rural social structure, and, in particular, with respect to how change has affected the bottom social levels within agriculture?

The answer to this question is epitomized in Walter Goldschmidt's now-classical study of Arvin and Dinuba conducted in the 1940's, a study that showed that agricultural practices in situations of smaller landholding produced more satisfactory social structures than did large landholdings. As a result of his work, Professor Goldschmidt was harassed by the agricultural establishment and learned that it was far less traumatic to engage in more traditional anthropological research. (Anyone wishing to learn how a scholar is traumatized by powerful institutional interests would do well to consult Richard S. Kirkendall, 'Social Science in the Central Valley of California,' California Historical Society Quarterly, Vol. XLIII (1964), pp. 195-218.) The lesson has not been lost on most scholars and only a few have been sufficiently motivated to engage in a difficult--indeed, almost hopeless--task of seeking research funds, let alone to confronting the powerful establishment in agriculture.

I have focused on the research because this is the area where I have had the greatest experience. It should be pointed out that this is but a small part of the way in which governmental policies have encouraged increase in size and agglomeration rather than in supporting and sustaining rural social structure. One can point, for example, to the policies on taxation and subsidization in agriculture where the primary beneficiaries have been the largest growers. We seem, in agriculture, to be following a pattern already established in industry of agglomeration and conglomerate corporate organization.

The corporatization of American agriculture appears to have taken a new turn as a result of the incorporation of the family farm--a process which has now taken hold to the extent that a United States Department of Agriculture publication estimates that two-thirds of the farm corporations in the United States are now incorporated family businesses. It appears that incorporation is a better way to survive in agriculture because of tax advantages. What the consequences of such incorporation will be for rural family and kinship organization, no one at present seems to know. Here then is a concrete kind of problem of government policy: government policy produces a thrust toward incorporation of the family farm but we know little or nothing about the effects on rural family structure. Should not such policies be examined to determine if they will strengthen or weaken rural family structure? Or should we continue to blunder about with the effects of policy upon social structure?

The consequences of our policies in agriculture can be visually apparent to this committee if it travels the east and west sides of the San Joaquin Valley. Here one can graphically see the differences between relatively small- and large-scale agriculture. On the east side of the valley, you will see towns, human settlements, a rural society. On the west side, where water will now be provided via the California Water Project and communication facilitated through Interstate 5, there will be relatively little social development. The corporate housing of large-scale growers--what would have been called in the old days "company towns"--are quite apparent. Here are concrete results of policies of economic development supported by federal and state funds, policies that will benefit large landowners primarily.

Little research is necessary to know this and we hardly require sophisticated batteries of research techniques to understand how federal dollars have benefited large-scale agriculture. If something is to be done in the near future, it will be necessary for action to be taken with dispatch to help sustain what is left of rural social organization.

I would emphasize what I would regard as the hopelessness of attempting to do this within the established agencies of the federal government, through the United States Department of Agriculture and the network of agencies created to serve agriculture. While the model of agricultural research-teaching-extension is a good one, the existing structures are so linked to established large-scale agricultural interests, that I see no hope of obtaining change through these agencies. If change is to take place, it will be necessary to use the model but to create new agencies with distinctive sources of funds. Otherwise, I fear that any efforts to produce change will produce what has existed in the past--either ignoring the situation or occasional staging an insignificant effort that can be reported to the Congress or the public as representing attempts to produce change.

Senator **Stevenson**. We will recess the hearing now for 20 minutes for lunch, instead of half an hour, and we will reconvene at 1:30.

(Whereupon, the subcommittee recessed at 1:10 p.m., to reconvene at 1:30 p.m.)

AFTERNOON SESSION

Senator **Stevenson**. The hearing of the subcommittee will come to order.

Is Mr. Jerry Fielder, the secretary of agriculture for the State of California, in the hearing room?

(No response.)

Senator **Stevenson**. If not, our first witnesses will be Mr. Mike McClosky, executive director of the Sierra Club; Mr. Keith Roberts, an attorney for California Action; and Gerald Meral, of the Environmental Defense Fund.

These gentlemen will form a panel to discuss the ecological and environmental implications of present and projected landownership and use patterns.

Thank you, gentlemen, for joining us.

STATEMENT OF DANIEL R. ROSENBERG, THE SIERRA CLUB OF CALIFORNIA

Mr. **Rosenberg**. Mr. Chairman, my name is Daniel Rosenberg. Mr. McClosky could not be here today. I am here today on behalf of 80,000 members of the Sierra Club who reside in California. We welcome your committee to this State and thank you for this opportunity to appear before the committee. Mr. McClosky has been unavoidably detained in Washington and cannot be here today.

I would hope that the committee will allow me the prerogative of diverting slightly from the main thrust of your investigation into the impact of land use, ownership patterns, and distribution on farms and farmworkers, as I wish to discuss a matter of great concern to the Sierra Club and many thousands of Californians, the California water plan, and some of the projects to be constructed and operated under it, and some of the possible effects of that plan on the future environment of California, and especially the future of our wild rivers to the north of San Francisco.

Is the California water plan an outline for the logical future growth of this State or for the environmental degradation of it? The Sierra Club and many thousands of Californians believe that implementation of the remaining elements of the plan would result in the degradation of much of the quality of life that makes California living, both rural and urban, uniquely worthwhile. This plan is now seen to threaten the drowning of the few remaining wild and scenic river valleys of north coastal California, threaten the complex marine life systems of San Francisco Bay and the delta, to hurry the development of unneeded agricultural production on marginal lands, and to provide the stimulation for expanded urban growth in the already overcrowded San Francisco Bay and Los Angeles regions. Is this what we all want?

The California water plan is the overall plan under which the development of California's water resources is expected to take place over the next several decades. It would supply the projected water needs of the State primarily by draining the wild rivers of our north coast. These rivers, the Eel, the Trinity, the Klamath, the Mad, and the Van Duzen, are the only remaining large, untamed rivers in the State. The impoundment of their waters will destroy forever their value as free-flowing rivers of great beauty and recreational value, flood existing agricultural lands, and destroy valuable fish and wildlife resources. These magnificent river courses are already a major scenic and recreational resource enjoyed by millions as they visit the redwood region. Their value for people escaping the pressures of urban living can only increase in the future. Yet, these intangible values have been ignored in planning the destruction of these rivers under the plan because it is impossible to assign a numerical value to them. Nevertheless, their values are real and their destruction must not be tolerated in an age that espouses concern for the environment.

The delta of the Sacramento-San Joaquin Rivers is a water world of meandering channels with more than a thousand miles of shoreline. The San Francisco Bay-Delta estuarine system supports a rich and diverse fish and wildlife population that is a major part of its recreational attraction. The anadromous striped bass, salmon, and shad are vitally dependent on water quality in the delta, particularly to water quality parameters of dissolved oxygen, dissolved salts, and water temperature. So are the members of the food chains that support them. Similarly, ducks in the Suisun March are dependent on delta water salinity because of the growth requirements of the plants upon which they feed.

Today, it is widely recognized that diversions of water into two components of the plan, the Delta-Mendota Canal and the California Aquaduct, at the southern end of the delta, are presently causing serious problems in the delta, as, most certainly, are the discharges of vast quantities of poorly treated municipal, industrial, and agricultural waste waters. These water quality problems can only be increased by further diversions resulting from the expansion of the Central Valley project and the completion of the State water project. Pumping for these projects, and others contemplated under the California water plan, would eliminate essential flushing flows through the delta and the bay. In addition to water quality problems, increased pumping will also have direct adverse effects on the delta fishery because of the creation of unnatural currents in the delta channels and the intake of eggs and larval fish at the pumping stations. Thus, the rich and diverse life of the bay-delta estuarine system could be seriously endangered. The resulting loss of the delta and San Francisco Bay as recreational resources would be enormous.

It is also recognized that, with proper operation and releases to the delta, the proposed Peripheral Canal could mitigate some of these problems, but, without proper releases, it could be a disaster to the delta. The Sierra Club has stressed the necessity of obtaining enforceable guarantees that the canal will, in fact, be operated to protect and enhance the delta environment. We have yet seen no believable guarantees of the releases needed to protect the delta, though the canal continues to be advanced as the solution to the delta's problems.

Possible future implementation of the water plan would supply water for expanded agriculture, primarily in the Central Valley where the State water project is expected to bring 600,000 acres of new agricultural land into production on the west side of the Valley. Completion of the plan will also expand urban growth in the San Francisco and Los Angeles areas. These developments seem neither necessary nor desirable considering many of the drawbacks past, unplanned growth has brought to these areas in the form of severe congestion, critical levels of air contamination and unsightly urban sprawl. At the same time, we appear to be approaching a period of increased agricultural surpluses, both in California and nationwide. Is this State to supply more water for agriculture while the Federal Government increases payments, out of our tax dollars, to buy up increased agricultural surpluses and to take land out of production elsewhere in the nation? And what is more needed in the Los Angeles Basin, increased supplies of water to foster further population growth or a better supply of clean air? All too frequently growth is a self-fulfilling prophesy in that planning and preparations to accommodate growth often stimulate growth itself.

As an illustration, consider that the State water project will provide water to irrigate new cotton fields in the southern San Joaquin Valley, particularly in Kern County. With project water can we not expect that only larger surpluses of cotton will result, with the possibility that the livelihood of many of our poorer, rural southern farmers will suffer at the marketplace?

The proposed East Side Division of the Federal Central Valley project, another component of the California water plan, is a further example of muddled thinking in California water planning. The project would take water needed to protect the environmental integrity of the delta, plus additional water from the north coast rivers. It would irrigate marginal farmlands on the east side of the San Joaquin Valley and the foothills of the Sierra for the production of low-value crops, such as forage. Only the large subsidy in such Bureau of Reclamation projects makes the price of the water low enough for such use. But nowhere in Bureau economics relating the costs to benefits of project water is there a consideration of the true costs to our wild rivers.

As new farmlands are brought under cultivation by project water so, too, will come the need for new towns for the farmworkers who will cultivate, harvest, process and transport agricultural products. But what steps have been taken in the area of statewide land planning to ensure that our farmworkers will find suitable housing, adequate educational opportunities, and medical care facilities in newly urbanized areas?

Modern agricultural practice brings with it the dependence upon broad applications of nitrate-based fertilizers and a host of persistent pesticides. To the credit of the Bureau of Reclamation, Federal water projects under the California water plan carry the requirements for the removal and treatment of agricultural drain waters which are laced with high concentrations of nitrates. These same nitrates, for which there is no requirement for removal under State water projects, have and will increasingly cause the contamination of drinking water, new, major public health problems in the Central Valley.

And to the credit of our State Department of Agriculture, California is quickly and, we think, positively, requiring the reductions in the use of DDT on our farmlands. We would only ask why that same department, with the assistance of the Department of Public Health, has not begun a long-range investigation of the possible public health hazards which may result from the use of dozens of other pesticides which are rapidly building up in soil columns through our farmlands? It appears probable that such buildup may lead to saturation and eventual release of harmful bioactive chemicals into ground water and surface water systems, possibly creating another health hazard to both rural dwellers and downstream urban water users.

The California water plan was last revised 14 years ago. It represents mainly engineering thinking of the 1920's and 1930's—"concrete and cast iron pipe" thinking. As a result, the plan not only fails to take into account modern concerns for the quality of our environment, but it also fails to take into account much of modern water technology. If it is assumed that there will be continued growth in California, there is no denying the supplies of water must be found. We question, however, the simple idea that such supplies must come from tapping the wild rivers of California. Waste-water reclamation, systematic groundwater management, and the buying up of excess agricultural water supplies all offer economic alternative sources of water for municipal uses, and seawater desalting should be economical in the next decade. Such new sources of water can now yield modest quantities of water at costs comparable with the costs of transporting water 500 miles or more. But the plans to build more dams and aquaducts continue.

Because of these deficiencies in the California water plan, the Sierra Club and others have called for a complete reexamination of the Plan and its environmental impact, including a re-evaluation of its underlying assumptions and value judgments. We have failed in our attempts to achieve protection for many scenic and recreational resources threatened by the implementation of the plan, and we believe that only such a reexamination can provide the knowledge leading to proper protection.

If a reexamination is to be meaningful, it should consider alternative ways of completing various projects to be implemented under the plan. It is for this reason that the Sierra Club has advocated a temporary halt in the awarding of construction on plan projects for the duration of a reexamination. Particularly affected by such a moratorium would be the Peripheral Canal, the East Side Division, and the high dam at Dos Rios on the Eel River—projects which have yet to receive congressional approval.

I would like to report to you the result of just two questions from a poll on the subject of California water which was recently conducted by the Commonwealth Club of San Francisco. Its members, generally considered as a group of conservative business leaders, were asked:

First, should the next major development for the State water project be deferred until plans are in effect to develop maximum economic quantities of water from renovations or reclamation of waste water or desalination of sea water?

The result: 1,781 yes; and 752 no.

The second question, with regard to water project development of northern coastal streams, should environmental factors take precedence over economic factors?

The result: 1,813 yes; and 679 no.

Increased awareness of environmental pollution has stimulated proposals and secured passage in California of a $250-million-bond package for the construction of many new wastewater treatment plants. We feel, however, that in arid lands found in this State, funds would be better spent for the construction of facilities to reclaim wastewater for reuse. The technology for this is far enough advanced that construction of facilities could start immediately. Treated, reclaimed wastewaters are too valuable a resource to discard.

Much of the proposed dam construction in the California water plan is to assure adequate supplies of water in dry years. An attractive alternative to this is a proposal to store surplus and reclaimed water in ground water tables during years of excess runoff, and to tap this supply in dry years. This scheme would eliminate the alleged need for such dams as the Dos Rios Dam.

There can be no doubt that a reexamination of the entire California water plan, and the expected redirecting of engineering efforts, will cost all of us some money. So does any worthwhile measure designed to protect the environment, and the cost of not conducting such a study may be much greater in the long run. The idea that a quality environment can be maintained for nothing is a myth that should have been abandoned long ago. The Sierra Club believes the reexamination of the California water plan to be so urgent that we must be willing to pay an immediate price. Not to do so may cost us the price of our quality of life in California.

The California water plan is founded on a narrow concept of land and water use and is unresponsive to the new goals and values society is fast adopting to insure its own physical and emotional survival. Implementation of the plan will irretrievably destroy the remaining natural north coast water courses, therein the integrity of the bay-delta estaurine systems, force unwise and permanent patterns of use on the land, needlessly stimulate the growth of already crowded urban centers, and foreclose the right of future generations to exercise their own value judgments.

Senator STEVENSON. Thank you, Mr. Rosenberg.

We will include your entire statement at this point in the record.

(The prepared statement of Mr. Rosenberg follows:)

Statement of the Sierra Club
before the
MIGRATORY LABOR COMMITTEE
of the
UNITED STATES SENATE
COMMITTEE ON LABOR AND PUBLIC WELFARE
Presented By
Daniel R. Rosenberg

January 11, 1972

Mr. Chairman and members of the Committee, my name is Daniel R. Rosenberg. I am here today on behalf of the 80,000 members of the Sierra Club who reside in California. We welcome your committee to this state and thank you for this opportunity to appear before the Committee. I would hope that the Committee will allow me the perogative of diverting slightly from the main thrust of your investigation into the impact of land use, ownership patterns, and distribution on farmers and farmworkers, as I wish to discuss a matter of great concern to the Sierra Club and many thousands of Californians -- the California Water Plan and some of the projects to be constructed and operated under it -- and some of the possible effects of that Plan on the future environment of California and especially the future of our wild rivers to the north of San Francisco.

Is the California Water Plan an outline for the logical future growth of this state or for the environmental degradation of it? The Sierra Club and many thousands of Californians believe that implementation of the remaining elements of the Plan would result in the degradation of much of the quality of life that makes California living, both rural and urban, uniquely worth while. This Plan is now seen to threaten the drowning of the few remaining wild and scenic river valleys of north coastal California, threaten the complex marine life systems of San Francisco Bay and the Delta, to hurry the development of unneeded agricultural production on marginal lands, and to provide the stimulation for expanded urban growth in the already overcrowded San Francisco Bay and Los Angeles regions. Is this what we all want?

The California Water Plan is the overall plan under which the development of California's water resources is expected to take place over the next several decades. It would supply the projected water needs of the state primarily by draining the wild rivers of our North Coast. These rivers, the Eel, the Trinity, the Klamath, the Mad, and the Van Duzen, are the only remaining large untamed rivers in the state. The impoundment of their waters will destroy forever their value as free-flowing rivers of great beauty and recreational value, flood existing agricultural lands, and destroy valuable fish and wildlife resources. These magnificent river courses are already a major scenic and recreational resource enjoyed by millions as they visit the Redwood Region. Their value for people escaping the pressures of urban living can only increase in the future. Yet, these intangible values have been ignored in planning the destruction of these rivers under the Plan because it is impossible to assign a numerical value to them. Nevertheless, their values are real and their destruction must not be tolerated in an age that espouses concern for the environment.

The Delta of the Sacramento-San Joaquin Rivers is a water world of meandering channels with more than a thousand miles of shore line. The San Francisco Bay-Delta estuarine system supports a rich and diverse fish and wildlife population that is a major part of its recreational attraction. The anadromous striped bass, salmon, and shad are vitally dependent on water quality in the Delta, particularly to water quality parameters of dissolved oxygen, dissolved salts and water temperature. So are the members of the food chains that support them. Similarly, ducks in the Suisun Marsh are dependent on Delta water salinity because of the growth requirements of the plants upon which they feed.

Today, it is widely recognized that diversions of water into two components of the Plan, the Delta-Mendota Canal and the California Aquaduct, at the southern end of the Delta, are presently causing serious problems in the Delta, as, most certainly, are the discharges of vast quantities of poorly treated municipal, industrial and agricultural waste waters. These water quality problems can only be increased by further diversions resulting from the expansion of the Central Valley Project and the completion of the State Water Project. Pumping for these projects, and others contemplated under the California Water Plan, would eliminate essential flushing flows through the Delta and the Bay. In addition to water quality problems, increased pumping will also have direct adverse effects on the Delta fishery because of the creation of unnatural currents in the Delta channels and the intake of eggs and larval fish at the pumping stations. Thus, the rich and diverse life of the Bay-Delta estuarine system could be seriously endangered. The resulting loss of the Delta and San Francisco Bay as recreational resources would be enormous.

It is also recognized that with proper operation and releases to the Delta, the proposed Peripheral Canal could mitigate some of these problems, but without proper releases, it could be a disaster to the Delta. The Sierra Club has stressed the necessity of obtaining enforcable guarantees that the Canal will, in fact, be operated to protect and enhance the Delta environment. We have yet seen no believable guarantees of the releases needed to protect the Delta, though the Canal continues to be advanced as the solution to the Delta's problems.

Possible future implementation of the Water Plan would supply water for expanded agriculture, primarily in the Central Valley where the State Water Project is expected to bring 600,000 acres of new agricultural land into production on the west side of the Valley. Completetion of the Plan will also expand urban growth in the San Francisco and Los Angeles areas. These developments seem neither necessary nor desirable considering many of the drawbacks past, unplanned growth has brought to these areas in the form of severe congestion, critical levels of air contamination and unsightly urban sprawl. At the same time, we appear to be approaching a period of increased agricultural surpluses, both in California and nationwide. Is this state to supply more water for agriculture while the federal government increases payments, out of our tax dollars, to buy up increased agricultural surpluses and to take land out of production elsewhere in the nation? And what is more needed in the Los Angeles Basin, increased supplies of water to foster further population growth or a better supply of clean air? All too frequently growth is a self-fulfilling prophesy in that planning and preparations to accomodate growth often stimulate growth itself.

As an illustration, consider that the State Water Project will provide water to irrigate new cotton fields in the southern San Joaquin Valley, particularly in Kern County. With Project water can we not expect that only larger surpluses of cotton will result with the possibility that the livelihood of many of our poorer, rural Southern farmers will suffer at the market place?

The proposed East Side Division of the federal Central Valley Project, another component of the California Water Plan, is a further example of muddled thinking in California water planning. The project would take water needed to protect the environmental integrity of the Delta, plus additional water from the north coast rivers. It would irrigate marginal farm lands on the east side of the San Joaquin Valley and the foothills of the Sierra for the production of low value crops such as forage. Only the large subsidy in such Bureau of Reclamation projects makes the price of the water low enough for such use. But nowhere in Bureau economics relating the costs to benefits of project water is there a consideration of the true costs to our wild rivers.

As new farm lands are brought under cultivation by project water so too will come the need for new towns for the farm workers who will cultivate, harvest, process and transport agricultural products. But what steps have been taken in the area of state-wide land planning to insure that our farmworkers will find suitable housing, adequate educational opportunities and medical care facilities in newly urbanized areas?

Modern agricultural practice brings with it the dependence upon broad applications of nitrate-based fertilizers and a host of persistent pesticides. To the credit of the Bureau of Reclamation, federal water projects under the California Water Plan carry the requirement for the removal and treatment of agricultural drain waters which are laced with high concentrations of nitrates. These same nitrates for which there is no requirement for removal under State Water projects have and will increasingly cause the contamination of drinking water -- new, major public health problems in the Central Valley.

And to the credit of our State Department of Agriculture, California is quickly and, we think, positively, requiring the reductions in the use of DDT on our farmlands. We would only ask why that same department, with the assistance of the Department of Public Health, has not begun a long range investigation of the possible public health hazards which may result from the use of dozens of other pesticides which are rapidly building up in soil columns through our farmlands? It appears probable that such buildup may lead to saturation and eventual release of harmful bioactive chemicals into ground water and surface water systems, possibly creating another health hazard to both rural dwellers and downstrean urban water users.

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(1) Should the next major development for the State Water Project be deferred until plans are in effect to develop maximum economic quantities of water from renovations (reclamation) of waste water or desalination of sea water? The result: 1,781 yes and 752 no.

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Senator STEVENSON. Mr. Roberts, would you like to proceed.

STATEMENT OF KEITH ROBERTS, ATTORNEY, CALIFORNIA ACTION, SAN FRANCISCO, CALIF.

Mr. ROBERTS. Thank you, Senator Stevenson.

I am not going to read my prepared text because I don't like to read what I have written.

Senator STEVENSON. We will read it. It will be entered in the record following your testimony. By all means, summarize if you prefer to do so.

Mr. ROBERTS. I would like to start with a kind of statement that may be somewhat repetitious, but, having come relatively recently from the East, I think it was important to me to understand why water was such an important thing to everybody out here.

In the East it rains, you know, all too often, and it is no problem. But here it only rains up in the mountains and where the people are, it doesn't usually rain. Without water, land is generally not very valuable. You can't farm it and people can't live and you can't build factories there. So in California and the Western United States, west of the Rockies, you have to build systems to carry the water from where it flows to the land where you want it, and which land you choose to bring it to becomes a land which appreciates in value. In other words, water is very much the method by which the land value is allocated in the American West. It is a source of wealth for many people and, therefore, is something that is highly controversial politically.

I came across water when I participated in the Nader Task Force study of land and power in California. I was assigned to study water development as a subject, that is, the construction of these systems for delivering water and why they were constructed. I found, in talking about that study, that I should make it very clear at the beginning what I think is good and what I think is bad, what my criteria for judgment are, in hope that you can agree with them.

In the first place, since water is primarily an economic commodity in the West now, the purpose of water development is economic. I think that you have to have an economic justification for building a water project. It can be argued that even a project which won't pay for itself would have other benefits, social benefits and so on. I haven't found that to be true on the project that I studied, but it is conceivable. But, even if such benefits occur, I would suggest it is more consistent with the idea of legislative control, the idea of democracy, to confer those benefits directly rather than through the indirect mechanism of a project to be built basically for economic reasons.

A second criterion, even if a project is economically justified, I would argue that you have to look at who gets the benefits and who pays the cost. Economic justification is a very gross way of looking at something. If you simply add up all the benefits, regardless of who gets them, and all the costs, regardless of who pays them, and if the benefits are greater, that is economic justification. I think if the benefits are accruing mainly to a small group of people who are already wealthy, and the costs are being borne by the mass of not-so-wealthy people, then there is serious question about the value of such a project.

So I would say that a system which distributes benefits and costs unfairly is also bad.

Thirdly, and perhaps most importantly among my criteria, is the quality of honesty. That wasn't a criterion when I began this study, but, as I got into this and looked at justification and what was happening, I came to realize more and more how important that simply moral virtue is for very practical reasons.

The practical reason is that in considering water projects, other major public works projects, and, indeed, most environmental proposals which are based on scientific reasoning, most legislators, most citizens, don't have the faintest idea or the faintest possibility of understanding for themselves the implications.

For example, if we have as a criterion the economic justification of a water project, I submit it is impossible for you, even if you understand the economics, with your busy schedule to figure out whether a given project is going to be justifiable or not. You have to rely on your experts to tell you that, and the same is true if you are passing on legislation concerning DDT. You really rely on scientists to tell you whether DDT has harmful effects or not. Therefore, the elementary integrity with which the professionals come before you and testify, is very important. Because, if there is a public decision made by legislators and by the general public at large, if these guys can't be trusted, if you don't know whether it is true or not what they are saying, I think that the possibility of rational decision-making in our society is almost totally destroyed.

I might add that I don't think the adversary system helps, because then all you get is a bunch of scientists screaming at each other and our ability to sort that out is like our ability to judge a debate conducted in, say, Serbo-Croatian.

So that quality of honesty, to me, is important not just because of morality but to preserve the possibility for society to make intelligent public decisions.

In studying the California State Water project, and the Central Valley project, San Luis Division, which was the most recently constructed water projects in the State, I think I discovered three basic things which I will elaborate briefly on, I hope.

First is how very expensive and disruptive these projects are. For example, the State water project cost $8.9 billion. The San Luis project, if you count both interest and principal, will cost something like $1.94 billion. The distribution system for this water being constructed by one local agency, the Metropolitan Water District in southern California, will cost several billion additional dollars just in itself. So these are serious projects, and there is a lot of money involved.

Secondly, these projects have the effect of drastically and radically redistributing wealth in this State. Redistribution of wealth usually means from the rich to the poor but, unfortunately, this is the other way around. The State water project by our calculations will benefit—and by benefit I mean give substantially more water or water at a substantially lower price—approximately a thousand people in the State.

Let me elaborate on that just briefly. Kern County, will receive half of all of the water between now and 1990, 31 percent of the land in Kern County which is eligible to receive State water, is owned by four ranches, and a handful of oil companies. An additional 38 percent is owned by the Federal Government, which has about 5 percent of it and owners of between one and five thousand acres. The remaining land in Kern County eligible to receive the state water is owned largely by cities and counties and used for roads and things like that, for residents.

Almost all of the rest of the water will go to southern California, and in southern California the water will not be used or will not benefit ordinary residents or citizens. I would explain a little later how that comes to be, but the beneficiaries of water in southern California will be, again, a relative handful of companies and individuals.

O.K., those are the beneficiaries, but who pays? The people who pay are, by and large, State taxpayers, those people who pay taxes in the State of California, and people who pay property taxes for the water agencies which are buying water. Their taxes are not based on how much they used, their taxes are based on other criteria such as the value of their land, and, in the very nature of things, therefore, the people who pay are not the people who benefit, necessarily, certainly not in direct proportion to the benefit.

It was impossible for us in the time of our study to work this out precisely, but it seemed quite obvious, given the nature of the distribution of benefits and the nature of the tax burden, that the people who pay will not be, by and large, beneficiaries of the project.

The San Luis project is very similar, although the people who pay, the taxpayers of the United States, are a little more widely distributed. However, the San Luis project, which is a $480 million construction work, will go exclusively to the benefit, right now, of the West Lands Water District in Fresno County. The West Lands Water District has about 550,000 acres; 200,000 of these acres are owned by 18 farmers. Incidentally, these 18 farmers received over $7½ million in 1969 in Federal crop subsidy payments, so they are not amateurs of this game.

The rest of the beneficiaries in San Luis, approximately 56 farmers own most of the rest of the land—I am sorry, 58—so you have 76 landowners receiving almost all of the water from a $480 million Federal project.

The effects of this kind of distribution on individuals is substantial. In the first place, it's been calculated by a professor of the University of California at Davis, a scientist, that west lands and the State water project works will bring enormous amounts of new acreage into production. The effect of this will be to drive the price down in those crops which are being overproduced. These are, by and large, the high-priced crops such as grapes, almonds, and walnuts, and things of that nature. The obvious simple result will be that small farmers, who have to make their living from selling these crops, are going to go out of business because they can't tolerate losses for several years in a row. So that is one very serious effect.

A second effect is the environmental costs of these projects, which Mr. Rosenberg for the Sierra Club outlined in some length.

I would like to point out simply one factor which may be overlooked. Once you build a pipeline like the State water project, it becomes economically cheaper perhaps to add to that project than to resort to other methods of developing water, such as desalinization. Therefore, once you have the basic thing, you have more or less locked the State economically into a juggernaut, and ongoing operation will consume the northern rivers and probably end up taking all of the water up to Amchitka, if it is still there.

So that is the basic theme of the expense and disruptiveness of these projects.

Secondly, something that intrigues me as a lawyer and a reader of detective novels, is how well hidden the distribution of cost and benefits of this project are, from the general public. There is a point to be made here, a rather serious point, to find where the cost and benefits are really going, you have to look at the details of the law, and you have to look at the fine lines in the accounting and finance. I have found it very difficult to present that type of material in any fashion which will prevent people's eyes from glazing over and snores from coming up quickly; yet, that is where it happens, that is exactly where these things go astray. Of course people who can afford to hire lawyers and accountants who won't fall asleep are the people who can use these details to their own advantage.

I will just give you a few examples, however, because they are so unique.

First of all, the State has declared—I will read it. This comes from a document by the Department of Water Resources, Bulletin No. 151-67, entitled: "Water Progress Report," published in September 1968. This is typical, and there are lots of others, the statement, "that capital cost of the State water project will exceed $2,800 million. Project customers will repay about 90 percent of the total project cost." That makes it sound very much like water users will be repaying 90 percent of the cost, which wouldn't be bad. But project customers are not water users, you see; project customers are 32 water agencies, and these water agencies repay that money only by virtue of assessing property taxes on all of the residents of their area, whether they use water or not. So the statement is incredibly misleading and it turns out that, until I came along and had several months of free time to spend fully looking into the water project, none of the critics of the project had caught that little piece of deception, because it is perfectly true that project customers will repay most of it, but the customers are not the water users and that is what the implication of the sentence is.

The sentence is usually used by the department in response to the criticism that taxpayers will pay for the water. They say, oh, no, project customers will repay 90 percent of the cost, and neglect to tell us that the project customers are our taxpayers.

Another little problem is whether State taxpayers pay anything. The department has consistently denied State taxpayers will pay money and, directly, they don't. It would be impossible to find out how State taxpayers pay money unless we look at where all the money is coming from. If you make a financial statement of the project, you find that about $1.1 billion will be loaned to the project by the State. Of course the department will tell you very quickly it is being repaid. What they don't tell you is that it isn't being repaid instantly, it is being repaid over a 65-year period, during which time that $1.1 billion, if invested in bonds at present interest rates, would earn about $2 billion of interest.

Where is that $2 billion going? You have to look very carefully. You have to look at the repayment priorities which are listed on the bottom of indentures and in other legal documents in the Department of Water Resources and, when you get finished reading it and going half blind, what you find out is that the interest gets repaid to the department, by the project customers; that water agencies do repay the interest to the department, but the department never pays it back to the State. The department keeps it, puts it in a special water account, and then uses it for additions and changes and corrections to the California State water resources program.

I might add, by the way, that when I make this criticism, Mr. Gianilli, the director of the water resources, and Mr. Ralph Brody, of West Lands Water District, and others, reply very quickly, oh, no, the project customers repay that interest, and then they stop. You see, they don't go on to say they only repay it to the department, they don't repay it to the State, which is the key point.

One final example about this. One thing I couldn't figure out for a long time is why the Central Valley large landowners wanted State water, because the State water which is delivered by contract will end up costing them about $35 an acre foot, which, even for them, is too much money. So I nosed around a bit and, in an old book by Cary McWilliams about southern California I got the clue. The clue is something called surplus water. It turns out that the State water project will deliver more water than what it has contracted to deliver. The contractual amount is 4.2 million acre feet, but the canals are big enough to deliver 8 million acre feet and, in fact, according to internal memoranda, it is planning to deliver a considerable amount more than the contract ordered. This is called surplus water.

Why is it surplus water? It is surplus water because, if you look at the very driest year in the middle of the longest drought on record for the State of California, you will find that the State water project would not be able to deliver any of this surplus water; all they could do is meet their contractual obligation and not one drop more. But any other year than this driest year they would be able to deliver more water, and that is what they call surplus water, that excess water.

They are going to deliver that water mainly to Kern County and they are going to charge for that water merely the cost of transporting it. That water pays none of the cost of construction, none of the cost of operating the project, none of the cost of maintenance or repair. As a result, the water will cost an average of about $3 an acre foot in Kern County. The figure may have been revised since I looked at it last.

Kern County is slated by contract to receive 25 percent of the project water. I told you earlier that it will receive half of the project water; the rest of it is coming through the surplus water. What happens, then, is that the average cost of water to Kern County is about half of what the cost looks like on the books, and brings it down to $14 or $15 an acre foot, which is just about what they can live with down there. So that was a pretty unique little device. I don't think the public has ever been fully informed about surplus water, and I don't think the people of California know they are paying a lot of construction cost to deliver a lot of surplus water to Kern County.

The third major theme is this point about honesty. I have already indicated a couple of instances where the State Department of Water Resources has not been fully candid with the public.

I think in my prepared statement I have a few more cases. What I would like to submit for the record is a copy of the Nader report dealing with water development in California, in which there will be even further examples.

Let me briefly mention a couple of points. As I said, the dishonesty is not dishonesty by politicians. In the first place, some people might tell you they expect politicians to be dishonest when they have an interest at stake, and that may or may not be, but, in any event, it is clear when they have an interest at stake and you can be on your guard for it. But engineers, accountants, and other experts of that nature like to parade as being objective and, until relatively recently, I think most of the public did believe that. So what are we to make of the fact that, when the Department of Water Resources evaluated the economic feasibility of this project they used such a bizarre expedient to quote a study by independent economist, as valuing water delivered in a desert area at $100 an acre foot, when at that very time there was irrigation water being used in that area at a cost of about $15 an acre foot.

A number of other bizarre expedients were used to justify the project economically. I don't think I will go into them here because they are detailed and technical. I think they are clearly illustrated in the statement.

Suffice it to say that even among the professionals who reviewed the department's evaluations, there was extraordinarily strong language about the honesty of the conclusions reached.

I think that the use of the word customers instead of the word water users is a factor. The concealment of the State interest. The statement of cost which I read to you, a $2.8 billion cost, as you recall I said it was $8.9 billion. The difference is the State never bothers to say what the interest payment will be on this project.

Mr. Gianilli has responded that no one ever states what the interest will be on a major item. Mr. Gianilli is unaware of the truth-in-lending laws which have been enacted by the Federal Government and the States on the theory of when you fail to state the interest you have committed fraud on the buyer, and they require a complete addition of the interest.

I will submit for the record a copy of such a statement by an organization which has not done too well by this State in other matters, Boise Cascade. If you go to buy a lot of land at Lake Wildwood up in the foothills, they will say that the cash price you pay is $22,900, and they will *say the finance charge is $13,165. If a similar* statement were made for the water project, the cash price would be $2.8 billion and the finance could be about $6 billion.

I think I have made the basic points I wanted to make, and I thank you for the opportunity of testifying.

(The prepared statement of Mr. Roberts along with other material follows:)

TESTIMONY OF KEITH ROBERTS BEFORE THE SENATE MIGRATORY LABOR SUBCOMMITTEE, TUESDAY, JAN. 11, 1972

Greetings, My name is Keith Roberts; I am a lawyer practicing in San Francisco, publisher of a monthly environmental magazine, CLEAR CREEK, and author of the section on water development in the Nader Task Force study released last August, Power and Land in California. I would like to submit for your record a copy of this chapter of the report, together with the "definitive rebuttal" to it from the Kern County Water Association, and my reply to that rebuttal. Although I sent this reply to the Water Association immediately after receiving their critique, they never bothered to mention it while distributing their "rebuttal", and even claimed recently that I had failed to reply at all. I am happy to have a chance to set the record straight.

INTRODUCTION

A study of water development is important for two reasons. First, it doesn't rain much in the United States west of the Rockies. As a result, man must carry his water from the rivers and groundwater basins to the land where he wants it. Very little land has much value without the water made available by such development. Thus, water development is a major mechanism for distributing wealth and power in the west, as well as a major land use in itself.

Second, a study of recent water projects in California reveals patterns of conduct which anyone making decisions about public works projects, such as you, should understand. In my presentation today, I hope to make you aware of some of the pitfalls involved, and to explain their importance.

In making judgments about the behavior of others, as we do in the Nader report, it is important to be very clear about what one means by "good" and "bad". So let me begin my discussion of California water by defining some criteria for judgment.

1. Economic Justification

The basic function of water development is to confer economic value; it makes land productive, or permits its development. We have long passed the time when water development was needed to permit subsistence in the Great American Desert, and thus could be regarded as necessary regardless of economic benefit. Since the goal of water development is to confer economic benefit, the crudest minimal requirement should be that these benefits outweigh the costs. This is a requirement of economic justification.

Arguably, some projects may have such outstanding social, political, or environmental virtues that they should be built despite a net economic loss. In most instances, however, it is clearer, simpler, and more consistent with the principle of legislative control to confer such additional benefits directly, rather than through the incidental effect of a basically economic project.

Conversely, when a project with bad social or environmental effects lacks even a crude economic justification, it clearly should not be built. This is true of the California projects I studied.

2. Fair Distribution of Costs and Benefits

An economically justified project may still be undesirable if it has a greater impact by distributing costs and benefits unfairly. Whenever the costs fall on people who don't receive the benefits, such a project redistributes wealth. If such an effect is desirable, the legislature should accomplish it directly and consciously, rather than through indirect and subtle mechanisms which neither it nor the public may understand.

I consider redistribution particularly unfair when the benefits go to the rich, and the costs go to everyone else. While the reasons for such a view are complex, few people except possibly Governor Reagan and his pals seem to disagree. Nevertheless, the single most important achievement of the projects I studied is an enormous reallocation of wealth from ordinary taxpayers to wealthy users of large amounts of water.

3. Integrity of Experts

Honesty is a moral virtue, but in areas requiring technical expertise, like water development, it is also a practical necessity. Decisions about large public works like water projects, or police measures like pollution control laws, depend on expert evaluation. The ordinary legislator or citizen cannot possibly know whether a project will be economically beneficial or not. He depends on economists and engineers to make the calculations which will tell him. Likewise, the average citizen has no idea whether DDT is harmful or not; he relies on scientists. And if the experts prove dishonest, he cannot sort out the truth for himself. Even an adversary procedure only puts the ordinary person in the position, as it were, of trying to decide a debate conducted entirely in Ugaritic. I will return to this problem later, for I consider it one of the greatest obstacles to rational decision-making.

Water development in California is so extensive that I limited my focus to four specific projects. I chose the California State Water Project because of its size and controversial nature; the San Luis Unit of the Central Valley Project as the most recent Federal project in the State; the Metropolitan Water District of Southern California as the most important "local" water agency; and the Kern County Water Agency as the most important agricultural purchaser. Since your interests are rural, I won't go into the MWD unless you ask me to.

The California State Water Project

This project is the first step of the massive State Water Plan for transporting most of the water in California's northern rivers to areas of the State which lie south of San Francisco Bay. The State Water Project is both a physical system and the contractual obligations dependent on it. These contracts require the State's Department of Water Resources to deliver a maximum of 4.2 million acre feet per year to 32 local water agencies, which in turn distribute it to users or, in some cases, even localler water agencies. 4.2 maf, by the way, equals thirteen trillion, six hundred billion gallons.

A. Economic Justification

There have been several economic evaluations of this project. The Department of Water Resources supplied the basic justification in its Bulletin 78 (1958). Owing in part to questions raised about that Bulletin, it hired the Charles T. Main Company in 1960 to review the Project's economic feasibility. In addition, at least two thorough, independent economic reviews have been published. One, by a team from RAND, became the basis for a vote of opposition to the Project by the Western Economics Association, the professional association for western economists. The other, by Professors Joe Bain, Richard Caves, and David Margolis, Northern California's Water Industry (1960), proved equally critical, and concluded that the Project, instead of a 2:1 benefit-cost ratio, would barely return 50¢ on the dollar.

When I raised the criticisms to Harvey Banks, who directed the DWR at the time Bulletin 78 was written, he snorted and said, "You tell me what benefit-cost ratio you want, and I'll get it for you, without straining my conscience either". He meant that benefit-cost evaluation entails many subjective judgments, about which men of integrity can disagree. Nevertheless, professional integrity does impose limits. And quite clearly, Bulletin 78 -- and, in another way, the Charles T. Main report -- transgressed these limits. As Bain, Caves and Margolis said, "Some rather bizarre expedients were employed to arrive at estimates of benefits high enough to 'justify' the project on economic grounds" -- op.cit., pp. 720-21.

The most important was use of a discount rate* approximately 1 1/2% lower than the lowest conceivably justifiable rate at the time -- a practice which inflated benefits by over a billion dollars. Various other practices beyond the pale of professional integrity are discussed in Appendix B. In addition, of course, Bulletin 78 resolved every point of legitimate professional dispute in favor of the project. Considering the importance of these factors, perhaps the most surprising aspect of Bulletin 78 was its resort to actual dishonesty.

The Charles T. Main report was deceptive in another way. Main was asked to evaluate the economic justification for the Project. The body of its report did so quite well, and in unquotable jargon concluded that the Project was a disaster. In the clearly written introduction and summary, however, Main postualated on unheard of definition of economic feacibility, totally inconsistent with the study directions. (It defined economic feasibility as a question of ability to pay. As one economist noted, by this definition it would be "feasible" for the State to dump a billion silver dollars in San Francisco Bay, if it could raise the money.) Using this definition, Main pronounced the Project feasible in language widely quoted thereafter by Project supporters. Main's performance, unfortunately, follows a common pattern for the Project's independent consultants -- there were six different teams over the years. They first state, in straightforward, quotable language, what the employer wants to hear; and then qualify the statement to closer conformity with the technical truth in the jargonized body of the report.

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* The discount rate is used to discount future benefits to present value. The lower the rate, the higher will be the present value of future benefits.

I also examined directly the claim that Southern California would need State water by 1990. Bulletin 78 reached this conclusion, only by ignoring its own caluclations about the amount of waste water that would be reclaimed; by assuming that the far higher cost of State water would not affect use; and by overlooking the availability of cheap water presently used for agriculture.

Since the Nader report was released, however, former Governor Brown has claimed that the need arose from a Supreme Court decision reducing California's share of Colorado River water. But the Project was begun in 1960, three years before the decision. Further, the decision will have no practical effect on California's water supply until 1985, if then, since Arizona needs the Federal Central Arizona Project to take its full share. Finally, the economic calculations of Project benefit, which show it to be so small, take the Colorado decision into account. The question, after all, is not only how much water is available, but how much water is desired.

B. Distribution of Costs

Project boosters say that it will cost $2.8 billion, and Project customers will pay 90% of this cost, the rest coming in flood control and recreation payments. Unfortunately, both these statements are completely false.

1. Amount of Cost

Cost ordinarily means the amount paid for something, the outlay. According to DWR bulletins, the outlay for construction will not be $2.8 billion, but $8.9 billion. The difference between the DWR's public statements and actual calcualtions represents the interest the State pays for the capital used in the Project. As with any large construction project, the cost of capital is the largest single cost (although the State Project, for reasons peculiar to itself, has particularly heavy interest payments).

Mr. Gianelli has replied that omitting the interest was entirely proper because no one ever includes interest in a cost statement. Aside from the illogic of that comment -- practice doesn't make perfect, so to speak -- Mr. Gianelli overlooks truth in lending laws. These laws were enacted on the theory that for expensive items, failure to state the cumulative interest is a fraud on the buyer. Thus, a purchase form for a $22,900 house at Boise Cascade's Lake Wildwood development shows principal of $22,900, and interest of $13,466 under the terms of the contract. I submit a photograph of such a form for the record, taken from CLEAR CREEK magazine.

In any event, by referring to ordinary practice in the case of other bonds, Mr. Gianelli mixes apples and oranges. One of the major opposition arguments to the Project in 1960 was that water users would never pay for it, leaving taxpayers to assume the burden. The question became, therefore, how much of a burden would that be? The relevant measure of the burden is not the $2.8 billion cost of labor and material, but the total obligation of the State, the full $9 billion. This is the question people were asking about the Project, and in the face of that question to assert a $2.8 billion cost seems deceptive.

The total cost of a local bond, however, has far less relevance to the voter's concern. The local bond voter is not concerned about his ultimate obligation, because the bond imposes an immediate obligation in the form of higher taxes. His question is how much will the bond raise his taxes, and he generally gets an answer. But in the case of the State water bonds, his question was about the total cost, and he received a deceptive answer.

Nor do Bureau of Reclamation practices justify the State's omission of interest charges. While the Bureau states the cost of its projects without interest, that statement accurately reflects what Bureau beneficiaries must pay, since the Federal government absorbs the interest. Everyone involved is acutely aware of this, because the interest represents the subsidy inherent in Bureau projects.

Furthermore, Federal projects pass through a sophisticated review process involving the Office of Management and Budget, the Reclamation subcommittees of Congress, and the Appropriations committees -- all of whom fully understand the specialized use of "cost" involved. By contrast, the State Project was submitted to the voters at large, few of whom had any inkling that "cost" did not include the largest cost item.

2. Who Pays?

The Department states that Project customers pay 90% of the costs in response to the complaint that taxpayers are paying for the Project. It has proved an effective response for a long time because no one realizes that technically Project "customers" are NOT water users, but those 32 contracting agencies, plus power compaies who buy Project-generated power! These agencies actually derive much of their income from taxes, and in fact the Kern County Water Agency was formed expressly to use the Bakersfield tax base to subsidize purchase of State water for the surrounding farms.

Another frequent Department assertion is that State taxpayers pay nothing for the Project. By avoiding any mention of interest. the Department can make this statement seem true. But my curiosity about Project interest turned up one of the cleverest and subtlest subsidies built into this Project, a subsidy direct from State taxpayers.

As DWR bulletins clearly show, the Project will borrow $1.1 billion from the State's Tidelands Oil and Gas Revenues. To learn when this money would be repaid, I looked at the DWR's schedule of repayment priorities. Here I found that, although the principal -- the $1.1 billion -- would be repaid in due course, the $2 billion in interest would go into a special fund to finance additional aspects of the Project. This did not appear explicitly, of course, but can be determined from the legal language of the repayment priorities. State taxpayers thus subsidize the Project in precisely the way Federal taxpayers subsidize Bureau projects -- by absorbing the interest.

The twist that makes this subsidy particularly subtle comes from the fact tha Project customers -- those 32 water agencies -- DO repay both the principal and the interest. But they repay it to the DWR, and the DWR doesn't turn that interest back to the State, as if does with the principal.

Both Mr. Gianelli, and Mr. Bottorff in his "definitive rebuttal" which I submitted earlier, attack me on this point. They both assume my charge to be directed against Project customers, and, revealingly, both indignantly assert that customers repay the interest in full -- without saying more. Yet, both know very well the distinction between Project customers repaying the DWR, and the DWR repaying the State. They know, and I know, and now you know, that these are not the same thing. But to the uninitiated, they seem to be, and the assertion that customers repay the interest becomes a thoroughly deceptive apparent denial that the State contributes interest.

If one adds up the State contribution in the form of that interest, local taxpayer contributions in the form of tribute to their water agencies, and various other State and Federal payments, it turns out that taxpayers will foot between 48 and 65% of the Project bill, depending on future taxing policies of the agencies involved -- not the 10% inplied by the DWR.

The lesson which emerges from this most clearly is not so much the unfortunate saddling of taxpayers with costs they never expected. That happens often, although not usually in this magnitude. Nor is it the deliberate dishonesty of the Project proponents, at least those close to the legal and economic technicalities, for that lesson pervades this whole discussion. Instead, the discussion shows how the truly enormous frauds under discussion reside in the minutiae of financial accounting for this Project, and in the densest thickets of legal prose. This means, unfortunately, that detection requires time and staff -- more than most legislators permit themselves.

C. Who Benefits?

A similar story leads to an understanding of who benefits from the Project. Thanks to the painstaking work of a Central Valley group headed by George Ballis, who took the Project service area and pieced together from hundreds of surveyors' maps the land ownership in this area, we know that 31% of the eligible land in Kern County (which receives nearly all of the Central Valley's allocation of State water) belongs to four ranches and a few oil companies. Another 38% belongs to the Federal government and private owners of one to five thousand acres. Most of the rest belongs to local government for use as schools and roads, or private owners in residential areas already supplied with water.*

The fact that the benefit goes to these huge landholders in itself creates social misfortune. According to a widely cited study by UC Davis Professors Dean and King, the Project will bring hundreds of thousands of new acreage under cultivation. Travel Route 32 now and you can see the growing seedlings. Because the water is expensive, the new acreage will be planted to presently high value crops -- the ones which sustain small farmers north of Kern County. When the new crops come to market, there will be a period of at least several years of low prices, requiring operation at or near a loss. If the recipients of State water were small farmers who had to live on yearly profits, they couldn't afford this and wouldn't be planting. But the owners are huge firms with outside income against which to offset these losses for a tax deduction. So they plant, and soon the present small farmers will be squeezed off the land by the period of low prices.

The price of State water in Kern County, by the way, won't be quite so high as it would seem. Kern County pays an average $21 per acre foot for water delivered under the contract. Add to this distribution charges, and the price is an astronomical (for farms) $35 an acre foot. But the State has designed its contracts for minimal obligation. In fact, it can deliver far more water than the contract requires. These extra deliveries of so-called "surplus" water come, of course, in the off-season, and on an interruptible basis. But if the recipient has a place to store the water, such as a groundwater basin, it's as good as any other water. According to DWR records, so much of this "surplus" water will be delivered to Kern County by 1990 that Kern will receive fully half of all Project deliveries through that year, although its contract share is 25%.

What makes "surplus" water so valuable is that the State sells it for the out of pocket cost of delivery. It bears no share of the construction cost, nor of the regular operation, maintenance and repair costs. Thus, "surplus" costs Kern about $3 per acre foot, which substantially reduces the average charge. By this device, the major recipients of State water pay far less than their fair share of the costs, even if we disregard the 48 to 65% paid by property taxes. Department officials almost never refer publicly to this "surplus" water device.

Surplus water is important for two reasons. First, it explains why Central Valley landowners were so eager for a State project that appeared to deliver prohibitively expensive water ($35 water would make even high value crops out of the question). Through surplus water, the cost, though still high, approaches that of other projects in the Central Valley.

Second, it explains who benefits in Southern California. As I noted earlier, Southern California doesn't need State water, at least not for so long a time that other sources, such as desalinization, seem a good possibility first. If so, the delivery of State water to Southern California creates no benefit, except to landowners in the path who may thereby capture development which might otherwise have occurred elsewhere. While these landowners, such as the Chandlers of the Los Angeles Times, undoubtedly had influence, the level of support from Southern California suggested other beneficiaries as well.

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* Not all of the eligible land will receive the water, but the DWR does not make available the ownership records of land which actually does receive State delivery. So ownership of eligible land must serve as a guide to ownership of actually benefitted land.

It turns out that the very lack of need in Southern California creates the other beneficiaries. The MWD, having contracted to buy 2 maf a year, finds it cannot sell that amount at full price. So it creates a class of "surplus" water, which it sells to those with groundwater basins at half price or less. By chance, it was possible to discover the water users in the major basins. They turn out to be the large water users of Southern California, such as the Irvine Ranch, various private water companies, and industrial users such as Standard Oil of California and other companies with oil refineries, steel plants, and the like in the area. By receiving their water in this fashion, these users save $60 or more per acre foot over regular modes of delivery, an amount which adds up for a company like Standard Oil which uses 4500 acre feet a year.

If one defines beneficiary as one who receives either substantially more water than would otherwise have been available, or water at a substantially lower price, it seems clear that huge water users are by far the major class of beneficiaries from the State Project.

D. Conclusion re State Water Project

I think three basic themes emerge from this discussion. First, the State Project is clearly a very bad undertaking from the public's point of view. Second, there has been pervasive dishonesty by its proponents, particularly some of the lawyers, economists, and engineers involved. And third, remarkably subtle and ingenious manipulations of the economic, financial, and legal details create the gross miscarriages which send benefits to the wealthy few, costs to the general public, and transform outrageous faults into praised virtues or discreet silences.

In terms of importance, I would not care to choose between the faults of this Project: the environmental destruction it threatens if it expands and consumes the wild rivers of the north; the human misery it must visit on perhaps thousands of farm families deprived of income, jobs, and homes; the huge but subtle cost to California taxpayers of buying an economically unrewarding Project instead of investing their money in schools, or services, or for that matter the stock market; the cost to democracy of concentrating yet more wealth in a remarkably few entities; or the insidious effect upon the public decision-making process as people learn, rightly, to distrust the experts -- and thus to distrust the only group that can help us make rational decisions on many important matters.

The San Luis Project

The San Luis Project consists of the San Luis dam, located west of Fresno, which stores water to be carried through the Project's canals to the Westlands Water District, a 550,000 acre area nearby. The dam and canal also serve the State water project, but by a feat of metaphysics lawyers, engineers, and farmers have distinguished the projects for purposes of reclamation law.

This Project has two remarkable features. With capital costs of $480 million, it costs more than did the ENTIRE Central Valley Project constructed prior to the inception of San Luis in 1960. Yet this stupendous Project, with interest amounting, I believe, to over a billion dollars, will serve an area with just over 2,000 landowners. As with other federal reclamation projects, the interest need not be repaid by the beneficiaries, and constitutes a subsidy. But the subsidy will not go equally to 2,000 owners. Eighteen of the owners account for over 36% of the acreage! And fifty-six more account for nearly all of the rest, for most of the 2,000 owners possess residential lots.

As might be expected, these owners are not exactly neophytes in obtaining Federal subsidy. The eighteen alone received well over 7 1/2 million dollars in direct crop payments in 1969, including the champion for the whole country, J.G. Boswell, and several of his closest competitors.

The second remarkable feature of San Luis is by no means peculiar to it. As the General Manager for the Westlands Water District, Ralph Brody, has stated in reply to the Nader report, the Westlands holdings fall within the provisions of the 160 acre limitation. This is supposed to mean that the owners contract to sell, at pre-water prices and after ten years, any land in excess of 160 acres* which receives the water. And, as Mr. Brody has indignantly pointed out, owners have signed contracts for a great deal of the excess land in Westlands. It is worth noting, that the value of receiving subsidized water for just ten years is considerable. Harry Horton, general counsel for a competing area which has done well at the Federal trough, the Imperial Irrigation District, stated in hearings on the San Luis bill that this ten year holding period was enough to make the Project desirable to Westlands owners, even though they would have to sell thereafter. If the water increases the value of land by $500 an acre, a reasonable estimate for Westlands, an owner like Boswell has the income from $500 times 22,000 acres, or $11 million for ten years.

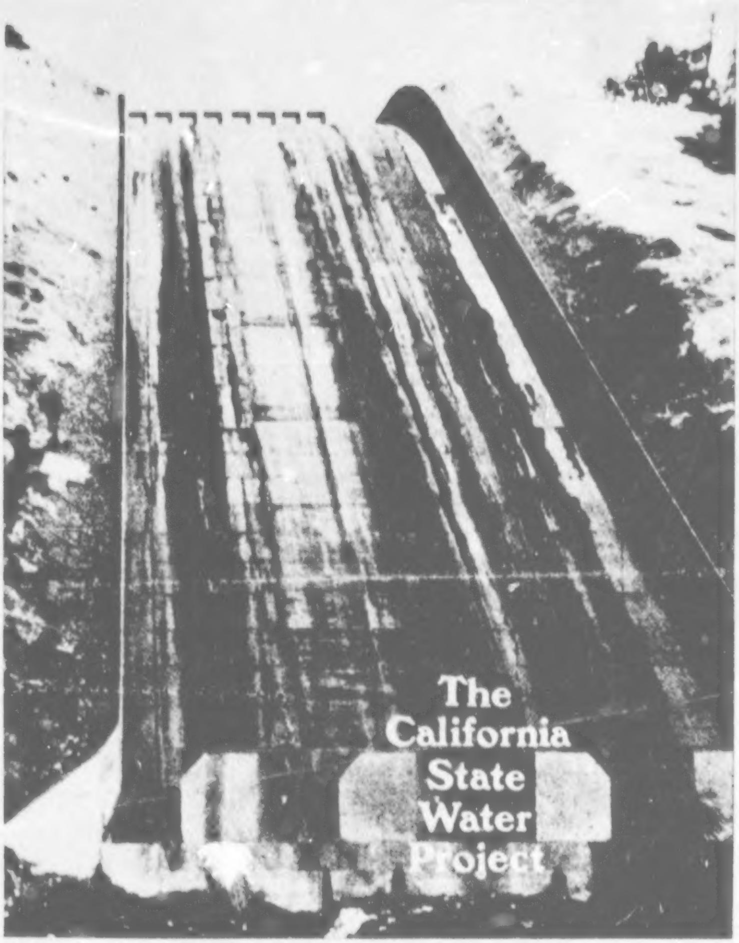
But the gentlemen of Westlands have a better deal than that. The requirement of sale at prewater prices is the key to the whole 160 acre limitation. If an owner can realize the added value to his land by selling at appreciated post-water prices, he in effect reaps all of the benefit conferred by the Project -- and in the form of low tax capital gains at that. This of course defeats an aim of the 160 acre limit, which is to spread the unearned gain caused by the Project as broadly as possible.

It appears that in Westlands -- and, apparently, by national Bureau of Reclamation policy everywhere -- the method of assessment guarantees that the Bureau's version of pre-water price includes most of that appreciated value. For example, one piece of Westlands land priced under contract was apparently valued at only $25 an acre less than the several hundred dollar per acre market value. At this price, any sensible owner would be delighted to sell and take his capital gain. But in fact, the price deters buyers. And in the absence of buyers, the original owners continue to farm the land and reap the benefits, which is the present situation in Westlands. To date, there has been only one Bureau of Reclamation sale of excess land in California, although possibly there have been others since I last checked.

The Bureau's assessment procedure involves looking at the sale of nearby land which does not receive Federal water, and taking this as representative of the pre-water price, as it would presently stand. It is hard to see where this would make sense, but it seems particularly improper in Westlands. Prior to the Federal project, Westlands had been irrigated from a groundwater supply which, in the late fifties, was dwindling drastically under the demands of overpumping. Pump levels were dropping ten feet or more per year, and most of the land would clearly have been turned to desert in a short time without outside water. The availability of Federal water to some land relieved the demand on groundwater, thus conferring nearly equal benefit on all land in the area. In taking land which did not directly receive Federal water for its measure of pre-water prices, the Bureau overlooked this underground pipeline, as it were, and thus came up with its ridiculous price. By the Bureau's caluclation, a Federal subsidy of nearly $2000 an acre produced a gain of value of only $25.

This brief review of San Luis reinforces the comments about the State water project. Mr. Brody's indignant defense of the district on the ground that the land is under contract amounts, in the circumstances, to the kind of deceptive half truth which water experts seem to favor. The Bureau's assessment practice shows again how the mechanism for enormous improprieties, involving hundreds of millions of dollars, tends to be a minute technicality, a seemingly inconsequential thread in the pattern of the whole.

Unlike the State project, San Luis amounts to a violation of established law. Indeed, the history of the 160 acre limit in California makes an interesting story of how to destroy a law. The San Luis problem arises on the level of the administrative rule; the administrators themselves, I found, seemed quite diligent and hardworking, although they showed no inkling that a Washington interpretation had reduced their zealous enforcement to meaninglessness. Another level of attack, which has worked well for the Imperial Irrigation District, is at the point of legal interpretation. The I.I.D. obtained an interpretation from President Hoover's outgoing Secretary of the Interior which effectively exempted it from the law until 1964, when Secretary Udall reversed the ruling. And of course you are probably aware of the most direct attacks, attempting to exempt particular projects from the law, or repealing the law altogether.



THE CALIFORNIA WATER PROJECT AS A CURE FOR DROUGHT, FAMINE, UNEMPLOYMENT, AND THE 160-ACRE LIMITATION BLUES

(By Keith Roberts)

> Fraud [*frôd*], *n., l.* (*a*) *deceit; trickery; cheating.* (*b*) *in law, intentional deception to cause a person to give up property or some lawful right.*
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> —Webster's New World Dictionary

Five hundred dollars for every man, woman, and child buys California a giant plumbing scheme to transfer fresh water from San Francisco Bay and North Coastal rivers to areas south. This scheme, the California State Water Project, benefits a few corporate farms in the San Joaquin Valley, a handful of landowners, speculators, developers, and water-using industries in Southern California—and the Project builders. Economists who have analyzed the Project's benefits and costs claim it will return barely fifty cents in benefit for each dollar of cost. And that counts economic cost alone; the Project threatens to destroy the San Francisco Bay Delta estuary—the largest in California, and one of the most important spawning and feeding grounds for fish and fowl on the West Coast—and may destroy the wild nature of California's last free-flowing rivers.

Fortunately, the decisions which would trigger the Project's severest environmental damage have yet to be made. But already, the Project has cost the people of California billions of unnecessary dollars and has set in motion forces which are driving thousands of small farmers from the land.

The history of the State Water Project illustrates a far-reaching problem of modern American society. The Project is typical of vast, technical undertakings by governmental and corporate interests (such as the ABM, the Vietnam War, the highway system, dams and powerplants, the SST, etc.)—projects whose impact, only the experts and technicians can predict. Decisions about these projects depend completely on expert advice; yet, as the making and selling of the State Water Project shows, the idea of "objective expertise" is a myth. Indeed, the systematic prostitution of engineering to venality and convenience is the major cause of the Project's existence. Fortunately, to understand how water experts have fallen to their state of easy virtue is to perceive some important steps toward rehabilitation, both for water experts, and for their brethren who sell other wonders of the technological age.

Californians never voted for the present Project. The Burns-Porter Act, which the legislature passed and Governor Brown signed in 1959, did not authorize it. The $1.75 billion general obligation water bond which the voters approved in 1960 was not meant to finance it. And the voters who, in June 1970, agreed to raise the permissible interest rate so the rest of the loan could be obtained on today's market did not vote for this Project. What Californians *did* authorize and approve was something quite different.

The approved project has the same *physical* characteristics as the one actually being built: a dam at Oroville to stop the frequent floods on the Feather River and impound a million acre-feet[1] which would otherwise flow out to sea each year; the Delta Pumping Works, to pump fresh water from the San Francisco Bay Delta into the California Aqueduct; the Aqueduct itself, a concrete-lined ditch running from Tracy, in the Delta, along the San Joaquin Valley's West Side to the Tehachapi Mountains 200 miles south; the San Luis reservoir on the West Side near Los Banos; Tehachapi Pumping Plant, to pump the water 2000 feet up and over those mountains; a network of canals feeding all this water into various areas and cities en route—Sonoma and Napa County north of the Bay; Alameda and Santa Clara Counties south of it; Santa Barbara; Los Angeles; San Diego; and the Mojave Desert southeast to Barstow—and a drain, to take waste water from the San Joaquin Valley back to the Bay and out to sea. These physical works deliver fresh water, which has flowed down the Sacramento River and its tributaries to the Delta, to 32 local water agencies which have contracts to buy it.

Californians thought they were buying a $2 billion project, but the real cost, as the experts knew, will be closer to $10 billion. The Project would save Southern California from a rapidly approaching water famine, according to the experts; but in fact no shortage of cheaper, local sources was in prospect until at least 1990, by which time desalinization would very likely prove practical. The experts also claimed that the Project would cost taxpayers virtually nothing. In reality, however, they will pay about half its cost as power users and as Federal, State, and local property tax payers—without counting the cost of generally higher bond interest rates owing to the Project's erosion of California's credit.[2] The experts proved equally deceptive about other important aspects of the Project—about its benefits and about its costs; about who would benefit, and about who would pay. This is what they did:

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[1] An acre-foot, the amount of water needed to cover one acre one foot deep, contains 325,851 gallons. A flow of one cubic foot per second (cfs) equals 1.98 acre-feet per day.

[2] According to A. Alan Post, the State's Legislative Analyst, California pays approximately ½% more interest on its borrowings because of the Water Project—a difference amounting to hundreds of millions of dollars for the towns, cities, school districts, and other governmental units that rely heavily on bond issues. The Project also may have totally prevented some areas from selling bonds.

THE COST SHELL GAME

The agency which created, promoted, and now constructs the Water Project, California's Department of Water Resources, claimed in 1960 that the Project would cost $2 billion, a figure presently adjusted to $2.8 billion. One reason for the claim was that, when Governor Edmund G. Brown took office in January, 1959, his finely-honed political instincts told him the voters of California wouldn't accept anything costing more than $2 billion. According to his Special Water Assistant, Ralph Brody, the Governor therefore told the Department of Water Resources to present a specific project at that cost. As an analyst for the Senate Water Committee later pointed out, however, the Project submitted by the DWR actually cost more than $2 billion. It was trimmed to an acceptable figure only by ignoring the quarter of a billion dollars which the DWR had calculated for inflation. Harvey Banks, Director of the DWR at the time, claims that this omission was by Governor Brown's orders.

Another omission which slims down the Project's apparent cost is the proposed Eel River Development, which the DWR presently estimates will cost $680 million of State money. Since the costs of other projected but as-yet unauthorized units *are* included, there is no justification for the Eel River omission.

But these omissions amount to peanuts next to the main item which the DWR blandly neglects in its "cost" estimates—interest. It is axiomatic that the largest expense in any major construction project is neither the labor nor the materials, but the cost of the money needed to finance it. That is why, for example, housing construction drops when interest rates rise, and vice-versa. The same holds true for the State Water Project. By the DWR's own calculations, it will be paying $2.7 billion in interest on the $1.75 billion it had to borrow to construct the Project. On that basis, it would pay an additional $2 billion for the money California intends to loan the Project—except that California will make the loan interest-free (so that the cost of the loan is charged to the State, not the Project). But nowhere in the DWR's public statements about the Project's costs do those figures appear! The engineers have simply ignored them. According to Harvey Banks, the reason is that there is an "engineer's definition" of cost—quite standard among engineers—which ignores interest. But regardless of what engineers think cost is, the interpretation of cost which the Governor, the Legislature, and the public acted upon was obviously quite different—cost as what the State would ultimately pay for this Project. And that amounts to anything from $8 billion on up.[3]

THE WATER FAMINE HOAX

In 1904, some San Fernando Valley landowners, together with Los Angeles' water supply "experts," created public consternation by predicting an imminent "water famine," and thereby obtained money to build the Owens River Aqueduct. Since the actual need for that water didn't materialize until several decades later, Los Angeles couldn't sell its new supply, and had to virtually give it away—to the San Fernando Valley landowners, as it turned out. In 1928, Los Angelenos and their neighbors again learned that a "water famine" was nigh. The solution, their experts said, was Colorado River water, and the experts—this time the Metropolitan Water District (MWD) of Southern California—assured the public that they would be using 400 cubic feet per second in 1940. By 1969, the original members of the MWD had just about reached that 400 cfs level—but meanwhile, they had subsidized the development of San Diego and the Irvine Ranch's Orange County.

What worked twice worked again in 1959, only this time the flim-flam came from the Department of Water Resources, and this time the experts should have known better. The fault lies less with their population estimates, which have turned out to be grossly overstated, than with their disregard for available alternatives. In addition, of course, the rhetoric somewhat distorted even the DWR's absurd estimates.

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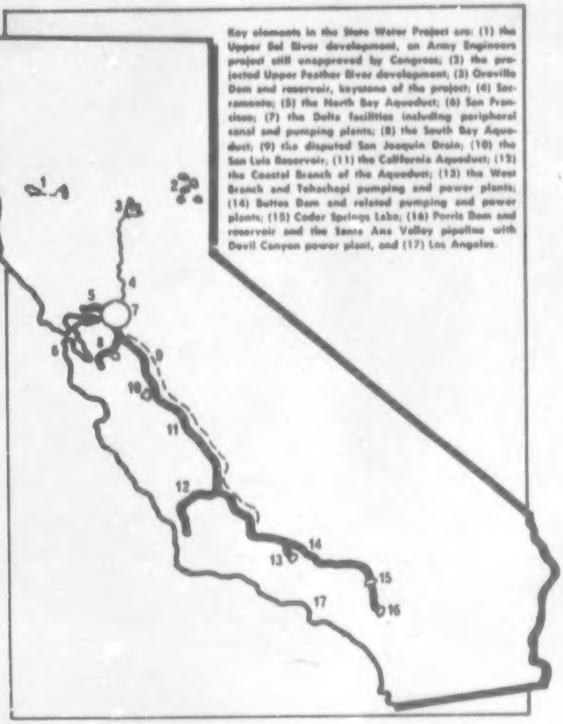
[3] If you want to get economically sophisticated, and talk about "oportunity costs," the actual Project cost becomes several billion higher. It works this way: once you have calculated the amount you will spend for the Project, you ask yourself whether you could invest this money elsewhere at a higher rate of return. The difference is the "opportunity cost." For example, if the Water Project merely breaks even, providing no beneficial return on your money (economists think it actually loses, in terms of benefits), but at the same time you could invest at 5% interest, your opportunity cost is the 5% interest on your money—a staggering amount over the Project's 50 year repayment period.



Key elements in the State Water Project are: (1) the Upper Eel River development, an Army Engineers project still unapproved by Congress; (2) the projected Upper Feather River development; (3) Oroville Dam and reservoir, keystone of the project; (4) Sacramento; (5) the North Bay Aqueduct; (6) San Francisco; (7) the Delta facilities including peripheral canal and pumping plants; (8) the South Bay Aqueduct; (9) the disputed San Joaquin Drain; (10) the San Luis Reservoir; (11) the California Aqueduct; (12) the Coastal Branch of the Aqueduct; (13) the West Branch and Tehachapi pumping and power plants; (14) Buttes Dam and related pumping and power plants; (15) Cedar Springs Lake; (16) Perris Dam and reservoir and the Santa Ana Valley pipeline with Devil Canyon power plant, and (17) Los Angeles.

The Department approached the problem from two ends. It calculated the water available to Southern California, and it calculated the area's "requirements." But in calculating the water available, the Department took absolutely no account of various existing sources—recycled wastewater, estimated at the time to be worth 200,000 acre-feet a year (and now admitted by the DWR itself to be worth 600,000 acre-feet!); groundwater reserves beyond the amount replenished each year (100 million acre-feet, by latest estimate); more efficient canals—a Bureau of Reclamation spokesman estimated that lining just one canal in Southern California would save 300,000 acre-feet per year on the purchase of water being used for agriculture—an omission which, according to the Bain, Caves and Margolis economic study of *Northern California's Water Industry* "resulted at the extreme in valuing Project-supplies urban water in a desert area at $150 per acre-foot . . . when abundant irrigation water in the area could be transferred to urban use at . . . cost of no more than $30 per acre-foot without significantly affecting the supply of irrigation water." Nor did the Department consider that desalinization would very likely be available at tolerable cost by 1990.

Probably the least excusable problem with the Department's estimates, however, stems from what economists know sardonically as the "requirements" philosophy, the Department's method of predicting the demand for water. This philosophy determines how much water will be needed without referring to price. Nineteen-ninety "requirements" are calculated by projecting present numbers of users and amounts of use to 1990, even though water in 1990 will cost much more and people will presumably buy less. But the Department's experts assume that the same pattern of use will prevail—that people will want just as much $90 water as they now want $20 water. As another economist, Professor Jack Hershleifer of UCLA, comments, "There is a shortage of new Cadillacs at a price of $500, except that the desires for Cadillacs are usually not dignified by the term 'needs' or 'requirements'." Even the Department itself, in a suppressed 1968 report, has admitted that price will significantly affect demand—so much so, that by including price in the caluculation, the DWR's own report concludes the project was started at least ten years too soon. But they knew that in 1960, too.

One of the DWR's truly astounding deceptions has been its frequent claim that "Project customers will repay about 90 percent of the total project costs." The statement is false as it stands, and false in its implications. As it stands, the statement ignores the fact that State taxpayers will pay a large portion of the Project's cost. They do so by making an interest-free loan to the Project of $1.1 billion from the Tidelands oil and gas revenues. Since the Project doesn't pay interest on the loan, the taxpayers do. The Tidelands money, and the interest it could earn, is diverted to the Project from schools and other social programs. To make up that diversion the State must raise the money elsewhere. At present market rates, this costs substantially more than $2 billion.

Even on the DWR's own terms, its statement that "Project customers will repay about 90 percent of the total project costs" is grossly misleading. To the untutored eye, "Project customers" reads like "water users," especially since the DWR uses the statement to rebut charges that taxpayers will pay for the Project. But in fact, Project "customers" are not water users: they are purchasers of electric power, who will pay about 10% of the costs, and 32 water agencies, many of which are supported by local property taxes. The Metropolitan Water District of Southern California, which will buy about half the Project's water, presently pays more than half its water costs from property taxes. The Kern County Water Agency, which will buy about a third of the Project water, was formed expressly to let its agricultural water users draw on the Bakersfield tax base, and it expects to meet one third of its payments through property taxes. All told, taxpayers and power users will pay between 49 and 65% of Project costs, depending on the future taxing policies of local water agencies—not quite what is suggested when the DWR says Project customers will pay 90% of the costs.

Department of Water Resources Table

DWR says:	DWR data says:
Cost: $2.8 billion.	$8 to $11 billion.
State pays: $280 million.	$2.38 billion.
Other taxpayers pay: $74 million (Federal flood control).	$3 billion.
Benefits: $2 per $1 of cost.	$0.59 per $1 of cost.
Environmental effects: Improvement of water quality, more recreation.	Disaster for San Francisco Bay and north coast.

CONSULTANT SPEAK WITH FORKED TONGUE

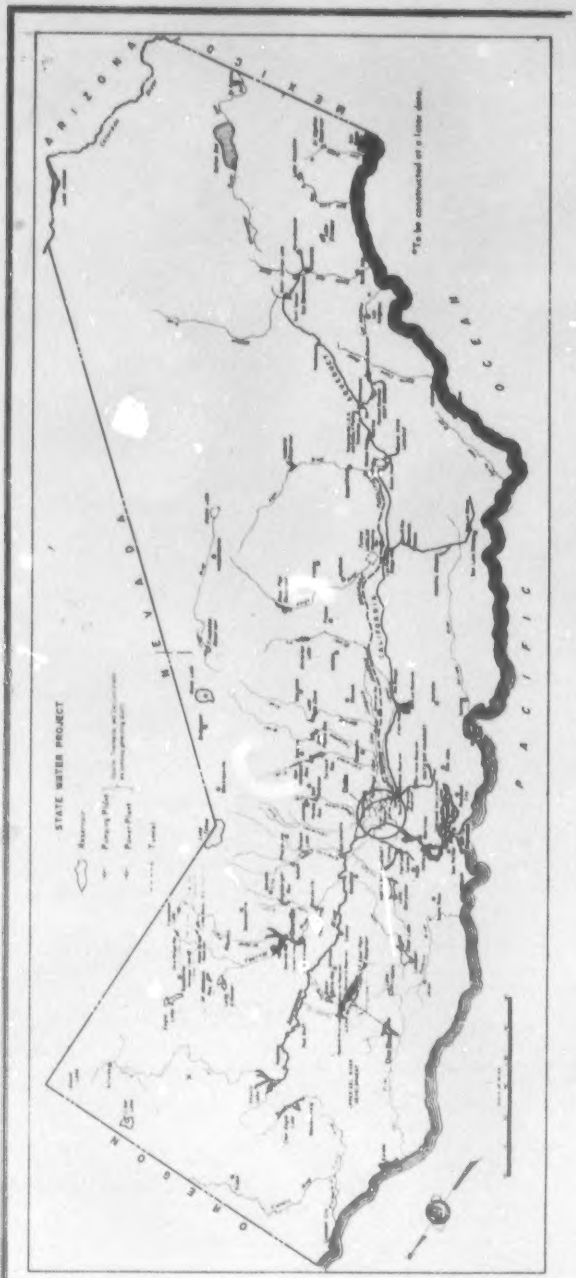
While the project was being formulated and considered, the DWR used a whole covey of "independent consultants" to check its work and convince the sceptical. But on examination, these consultants prove nearly as dishonest as the Department. Nearly all, deep within the bowels of their jargon-laden reports, disapprove the Project; but with the bright exception of one member of one team of consultants, Professor Adolph Ackerman, the consultants kept their reservations quiet, and allowed the public to gain from their reports the false impression that they approved. The most remarkable example of such skullduggery was supplied by the Charles T. Main Co., an eastern engineering firm. After Akerman's objections raised concern, the Dpartment hired Main to evaluate the Project's "economic feasibility"—meaning, whether its benefits would outweigh the costs. Main released its report just before the public voted on the Project in 1960. The Los Angeles *Times*, a Project promoter, headlined Project Gets Sound Rating: the San Francisco *Chronicle*, an opponent, said the opposite: State Water Plan Called Impossible. What happened was that Main said both. The firm's report declared, in clear and forthright terms, that "On the basis of the previously cited definition of economic feasibility, the project . . . could pay back all costs. . ." The LA *Times*, the DWR, and the Project's other supporters seized upon that statement. But Main had also defined "economic feasibility" in a very strange way, to mean whether or not the State could raise the money. By this definition, it might be "economically feasible" to throw a billion silver dollars into San Francisco Bay—but that isn't what Main was asked, and that isn't what everyone understood by "economic feasibility" when the report was issued. Furthermore, the rest of Main's jargon-infested report goes on to say, in effect, that anyone would be crazy to build such a Project. But, of course, reporters, politicians, and the general public don't usually wade through such fine print. (Charles T. Main, Inc., Final Report, "General Evaluation of the Proposed Program for Financing and Constructing the State Water Resources Development System," October 1960.) There are several reasons why supposedly reputable professionals engage in this type of conduct. Each practice, fallacious, misleading, or unjustifiable as it is, falls within an area of generally accepted professional principles. When we asked the DWR's 1959 Director, Harvey Banks, why the statement of costs omitted interest, he explained that engineers always defined "cost" in this way. The omission of $250,000,000 inflation cost from the original cost estimates, he explained, was at Governor Brown's request, and was done merely by stating costs *in terms of 1959 dollars*. The Department's failure to consider alternatives other than the State Water Project in studying the need for water in Southern California was "justified" by the fact that such alternatives could be assumed (by whom?) politically unfeasible—the farmers would complain about people taking their water, people wouldn't want to drink waste water, etc. Banks noted that the "requirements" approach, mistakenly, assuming that price would not affect demand, was assuming a "standard" engineering practice sanctioned in several textbooks, and by general usage, 35% "interest" rate, for costs, rather than the higher one all economists agree should be used, was justified on two grounds: the US Bureau of Reclamation was using the same low rate, and anyway, the economists can't agree on any one rate that should be used. The statements about "Project customers," of course, are technically accurate if one defines cost as the engineers do: the engineers can't help it if people think "Project customers" means "water users," can they? As to the consultants, Mr. Banks did concede that they had been pretty deceptive, but he noted that Charles T. Main, Inc. had never done a water project before. It perhaps epitomizes the state of engineering standards that Mr. Banks could say, when we asked him why the DWR thought benefits of the Project would outweight costs, "You tell me what benefit-cost ratio you want, and I'll get it for you, without straining my conscience."

THE RICH GET WATER AND THE POOR GET SOAKED

Legally, the Project is a scheme for selling water. The State sells it to 32 local water agencies, who in turn retail it to users like farmers, residents, factories, hotels, etc., or sell it to yet smaller water agencies. While many people ultimately receive this water, the only ones who actually benefit from the State Water Project are those who receive substantially more or substantially cheaper water than they would get without the Project. This leaves out the average resident in Southern California. He uses, at most, one-fifth of an acre-foot of water per year—a high rate, but still too little for the Project to affect. As already noted, he would be assured of water for the foreseeable future without the Project. But even assuming that his only supply would be desalinized water costing $150 an acre-foot, the extra cost over the Project's $60 per acre-foot water would be only $18 per year. If the smaller user owns a $10,000 house, he pays that in taxes to the Metropolitan Water District anyway. So the Project does not really benefit the average Southern Californian.

But the Project does benefit two classes which use large amounts of water: large landowners, and water-using businesses. For one thing, they will be receiving most of the water the Project delivers; for another, the Project, through an extremely subtle and clever trick, makes this water available to them for much less than they would otherwise have to pay.

While certain large landowners in Southern California, such as the Irvine Ranch (80,000 acres), Tejon Ranch (10,000 acres, partly owned by the Chandlers, who own the Los Angeles *Times*), Newhall Ranch (48,000 acres), and Rancho California (50,000 acres, jointly owned by Kaiser and Penn-Central), will obviously profit by the Water Project, the major beneficiaries are the corporate farms of the San Joaquin Valley. More than half of all the water delivered by the Project between 1970 and 1990 will go to the San Joaquin Valley. The lands in the Valley which will receive Project water have been mapped by the California Labor Federation and the Young Democrats. According to their 1959 survey, 64% of these lands are owned by about 100 persons! Of the remaining land within the Project service area, a substantial amount belonged to local governments.


STATE WATER PROJECT
Reservoir
Pumping Plant
Power Plant
Tunnel
OREGON
NEVADA
ARIZONA
MEXICO
PACIFIC OCEAN
CALIFORNIA
*To be constructed at a later date.

Clear Creek, April 1971

LAND OWNERSHIP IN THE SAN JOAQUIN VALLEY AREAS SERVED BY THE STATE WATER PROJECT

Owner	Acreage	Percent of total
Tenneco, Inc. (Kern County Land Co.)	348,026.46	8.7
Standard Oil of California	218,485.18	5.5
Other oil companies	264,678.64	6.6
Southern Pacific RR	201,851.75	5.1
Tejon Ranch [1]	168,531.07	4.2
Boston Ranch (J. G. Boswell)	37,555.58	.9
Total owned by approximately 15 firms	1,238,228.98	31.0
Other private holdings over 1,000 acres/person	1,323,821.57	33.1
	2,562,050.55	64.1
U.S. Government	192,762.13	4.8
Owners of less than 1,000 acres/person, including city, county, and State	1,240,648.24	31.1

[1] Does not include acreage owned by Tejon Ranch in southern California.

Source: Table from Ballis, "Land Ownership in the San Joaquin Valley," 105 Congressional Record pt. 6, p. 7677 (1959).

In Kern County, which will receive by far the largest share of San Joaquin Valley water; 78% of the land to actually receive State water belongs to owners of more than 160 acres.

These large landowners are the single most important class of beneficiaries from the State Water Project. Indeed, they hatched the whole idea for the Project, and provided the major lobbying muscle which pushed it through. Much of their land, prior to the Project, lay fallow; the huge Federal Central Valley Project supplies farms to the north and east of them, but did not reach the southwestern section of the San Joaquin Valley. Moreover, what groundwater they had was rapidly receding due to overuse. To farm or otherwise develop their land, these landowners had to import water. The most logical alternative, of course, was to extend the Central Valley Project. This would provide water and, in addition, the huge Federal subsidy that goes with Bureau of Reclamation irrigation projects. Unfortunately for the landowners, however, reclamation water comes with a condition attached, based on a long-standing Federal policy of encouraging small farms and limiting the amount of irrigation subsidy any one farmer may receive. This condition, the 160-acre limitation, requires anyone receiving reclamation water on more than 160 acres to sell that "excess" land within ten years at pre-water prices. The large landowners would have none of that, of course, and fought for many years to have the legislature repeal the limitation, the courts nullify it, or the Bureau of Reclamation ignore it. According to most observers, it was their failure to gain any of these objectives which finally made them turn to the State. California, of course, has no 160-acre limitation policies.

So the Water Project brings them much-needed water, without imposing conditions on its use. But it also supplies the water with a considerable subsidy. Take Kern County as an example.

Kern County has contracted to buy a maximum of 1.15 million acre-feet per year from the State. The State has set the price of this contract water to cover all costs of constructing the system and delivering the water to Kern County—that is, all costs allocated to "water users". Presently, the State charges Kern County an average of $21 per acre-foot. But this charge does not include costs borne by those who buy electric power from the Project, nor the real but unstated costs assumed by the State through its interest-free loan to the Project. It probably costs California closer to $35 an acre-foot to deliver water to Kern County, so right there the landowners receive a $14 per acre-foot subsidy.

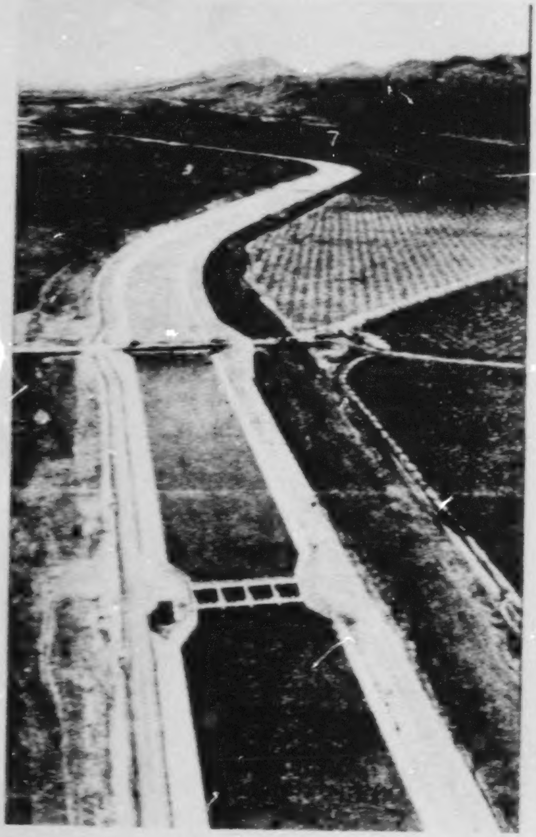
Kern County has also established the Kern County Water Agency, with the sole function of buying the water and selling it to local water districts. This intermediary exists for one purpose: to help pay for the water through a county-wide property tax. Taxes in Kern County now pay approximately $6 towards every acre-foot the Agency buys, raising the total direct subsidy for contract water going to Kern County's landowners to $20 an acre-foot.

BEST COPY AVAILABLE

But between now and 1990, Kern County expects to receive more water than it has firmly contracted for. The additional water is known as "surplus" water, the State charges merely the cost of transportation—$4 an acre-foot in Kern County. Obviously, whatever "surplus" water Kern County can obtain amounts to a tremendous windfall. If, as now predicted, it receives nearly as much "surplus" water as contract water, the average price of its water will be lowered from $21 per acre-foot to $12.50 per acre-foot.

The DWR justifies its give-away rates for surplus water on the ground that delivery is unreliable, since it cannot guarantee the water's availability after the contractual obligations have been met in a drought year. That makes sense, until one notices that the Project's contractual obligations are so low that plentiful "surplus" water will be available in any year except one as dry as the driest year ever recorded in California, which came after a seven year drought. Even then, "surplus" should be available until the year's supplies reach their maximum contractual level—1990.

In addition to the tax and "surplus" water subsidies, large landowners receive yet another bonus from the State Water Project: increases in land value. In California, land without water is worthless; water gives it value. Indeed, water can raise prices $1000 an acre or more. A study in 1968, before water deliveries had begun, showed that an isolated tract of Kern County land rose by over $100 an acre in assessed valuation, merely in anticipation of water coming to nearby acreage. Should the Water Project ultimately increase land values in the Service Area by $300 an acre—a conservative guess—the big landowners will have received a capital gain (taxable at a lower rate than ordinary income, such as wages) of $780,000,000.



Incidentally, it is interesting to note that the farmers bagging these huge subsidies feed at the trough of public welfare elsewhere. JG Boswell, owner of the huge Boston Ranch, received over $5 million in 1970 from the Federal Government in crop subsidies. Boswell is the nation's leader in income for NOT growing crops, but the other State Water Project beneificiares are right up there with him. Both Tenneco and the Tejon Ranch, for example, received several hundred thousand dollars too.

SOUTHERN CALIFORNIA: SUCKING OUT THE SURPLUS

At first glance, Southern California's eagerness for the State Water Project seems hard to understand. Its agriculture does not need State water. Its residents do not need State water. Even the real estate interests—the builders, dealers and speculators—gain nothing from State Water since cheaper local sources will sustain any foreseeable demand for development. Despite the views of some conservationists, Southern California's population growth is demonstrably unrelated to the State Water Project. Another explanation for Southern California's eagerness—its reputed desire to secure legal rights to Northern water before others did, since in California rights go to those who first use the water also seems doubtful. With adequate local water for a significant period of time, Southern California's best strategy would be to wait for desalinization, which in time will surely be cheaper than water imported from the North. Thus, Southern California has no pressing need to secure rights to the Northern water.

But a closer examination yields explanations for the southland's undoubted fervor on behalf of the water project. First, and not to be under-rated, is the fact that most Southern Californians, including most builders, developers, and speculators, know no more about the area's water needs than any other ordinary citizen. They, too, depend upon the experts. The experts all told them the Project was desperately needed. So of course they supported it.

Southern Califoraians can look to others aside from the Department of Water Resources for expertise. For example, they can look to Southern California's premier water agency, the Metropolitan Water District of Southern California (MWD), which supplies water to more than 10 million people. But this agency, which has contracted to buy half the Project's deliveries, has embarked on a billion dollar building program of its own to distribute the water, and consequently has a very solid self-interest in seeing the Project come to fruition. Moreover, the agency's history, and the recent remarks of its leaders, show a persistent incompetence perhaps unrivaled by any other agency in California's history. The sad story of the Colorado River Aqueduct has already been mentioned; by 1969, the original members of the District still had not reached the level of use which the MWD had predicted for 1940. The District's recent General Manager and present chief advisor, Robert Skinner, showed his economic acumen and sense of monetary responsibility when he told a State Senate Committee in 1962:

"I find myself, you might say, way out of bounds with the professional economists because the tendency among the economists is to say you have to prove economic need before you spend the money, and when we say we ought to oversize [water projects], we may be saying that we ought to spend some money before we can prove when the need would arise, but I feel—I can't help but feel the bigger we could make these . . . aqueducts, the better off Southern California would be.—Calif. State Senate, Facet Finding Committee on Water, Hearing, October 18, 1962, San Diego (Water Archives, UC Berkeley)."

A few very important interests within Southern California stand to benefit a great deal from this Project.

First, the developers. As noted, developers do not gain from the Project as a group—the same total amount of development will occur, Project or not. But the Project does change the PATTERN of development within Southern California; it enables new towns to spring up on interior sites where, but for the Project, only jackrabbits would roam. Naturally, those owning the benefitted land strongly favored the Project. The areas slated to lose development because of the project could not be specifically identified, and their owners therefore mounted no countervailing objections. It appears that the Project will visit its bounty on virtually all the major landholdings in Southern California—the Irvin Ranch, Tejon Ranch, Rancho California, etc.

The second group of specific Southern California beneficiaries consists of water users able to take advantage of the "surplus" water ploy mentioned earlier. In Southern California, this ploy takes a slightly different twist, since the Project itself will deliver comparatively little real "surplus" water.

The MWD makes up for that, however, by creating "surplus" water of its own. Quite simply, the District has contracted to buy far more water from the State than it can sell at full price. Having placed itself in this ridiculous position, the only "rational" solution will be to sell what it can at full price, and sell the rest—the "surplus"—for whatever it can get. This, of course, is precisely what Los Angeles had to do with the Owens River Aqueduct, and the MWD itself has had to do with the Colorado River Aqueduct.

There is an upper limit to how much water most users will take, even if they get it free. Thus, the only real customers for the MWD's "surplus" water are water districts with a storage capacity—primarily those overlying depleted groundwater basins—known as Water Replenishment Districts. Whereas the MWD intends to sell State water for $60 an acre-foot to agencies which supply the water directly to their customers, it will sell "replenishment" water for only $30 an acre-foot. The people living within a Water Replenishment District will be receiving their water for $30 an acre-foot, plus the nominal cost of pumping it out of the ground again. The people living within a regular water district, such as those served by the Los Angeles Dept. of Water and Power, will be paying $60 an acre-foot, plus substantial additional fees for distribution costs—all told, in Los Angeles, about $120 per acre-foot.

Who are the lucky people living in Water Replenishment Districts? Quite simply, the largest water users in Southern California aside from big landowners; various private water companies, and the biggest industries. The following table is based on a survey of two Replenishment Districts in Los Angeles. The subsidy calculation is based simply on the difference (about $90 per acre-foot) between what these firms pay for their water and what the rest of Los Angeles pays. Only the availability of Project water to supply their groundwater basin keeps them from rapidly depleting it and turning to direct deliveries for a supply. The subsidy calculation does NOT include another very real subsidy many of these firms are receiving: the MWD property tax subsidy. Presently, the District meets half its water payments through funds raised from property taxes. To the extent that a firm uses a larger share of the water than it pays in taxes, it receives a tax subsidy—and most heavy water users would fall into that category.

THE CALIFORNIA LAND USE STUDY: AN INTERVIEW WITH ROBERT FELLMETH

"We're not seeking to impose a foreign ideology on anyone. We say, take *your* laws, *your* rules, *your* ideals, and put them into effect. The American system, if implemented properly, would really work. We look for key changes, which, if made, would reverberate through the entire structure."

In the summer of 1970, Robert Fellmeth led a 30-member team which studied the full scope of human relationship to land in California. This team was selected from over 4,000 applicants, and included lawyers, biologists, economists, journalists, and urban planners. Fellmeth and associates are producing a volume titled *Power and Land in California*. The whole study cost $18,000. These professionals are clearly fueled by something besides money. They are associates of the Center for Study of Responsive Law, a group well known as Ralph Nader's Raiders.

"The book title does *not refer to electrical power*" Fellmeth smiled. "It is the first major survey, with depth studies in key areas, of all agencies and most laws currently affecting land use in California." No longer smiling, Fellmeth added, "It's a game plan for follow-up. We want detailed investigation in each area, extensive litigation—for law change and to disclose suppressed reports—lobbying, and perhaps even political action and demonstration."

What if this Nader group achieved all its goals? "In an ideal world," said Fellmeth, "it would mean the resignation of the governor, half the legislature, and half the executive branch. Two, new elections would be held, under new ground rules. Three, new laws regulating land use in California would be passed.

"Nothing of this sort will happen," Fellmeth assured with sardonic grin. "Most likely, we'll create a necessity for more vigorous public relations campaigns! We hope, at least, to change the ground rules on conflicts of interest, campaign, contributions, and regulation of the legislative process."

Why was California chosen for a land use study? "Nader's philosphy is to take the biggest, or best, or both, and see how it functions. California is supposed to be a model in many areas. It's legislature was chosen number one in a national poll. Land use questions are not yet moot in California, as they are in some eastern states. Mistakes of the east have not yet been made. At the same time, there's an influx of people, land values are inflated, and special interests have a particular profit stake in California land."

What is the political philosophy of the Nader Raiders? "The approach of the Center," explained Fellmeth, "is extreme pragmatism. It is grievance-oriented, problem-oriented. This generation tends to be concept-oriented, which can be dangerous; it leads to the worship of a set of symbols, which is more productive of emotions than anything else. We believe reformers should first get down into the dirt, work with the empirical evidence. I myself believe America is moving toward the corporate state, in which the means of production own and control the government. I favor a balance between industry and government, the two forces capable of mass enslavement, with government moving in to regulate industry when necessary."

The article on the California Water Project by lawyer Keith Roberts, which appears in this issue of Clear Creek, is part of the land use study. It focuses on the corruption of expert information sources by a nexus of land barons, greedy corporations, and power-driven bureaucrats.

Fellmeth took mild issue with the conclusions of team member Roberts. "Reforming the experts will not solve the problem," he suggested. "Experts could have stopped the California Water Project, *if* other political changes had made them independent. Rather than being the cause of reform, publicly-responsible experts would result from reform somewhere else.

"The key principle we are seeking to implement is this: when someone receives a benefit from public money, he should pay according to the cost of that benefit. If this principle was followed, California taxes would be cut in half."

Then, glancing at his watch, Robert Fellmeth was off to pursue rearrangement of the laws linking man to land in California.

The industries do not receive the full benefit of these phenomental subsidies. Long before they would have to pay an extra $100,000 a year or more for water, they would convert to recycling processes consuming vastly less fresh water—processes available to virtually all the industries cited. The $363,360 subsidy to Standard Oil merely saves Standard the cost of such conversion—a saving of perhaps $30,000 a year. Thus, these subsidies are not only outrageously large, they are outrageously inefficient. The same holds true for the subsidies being supplied through the Water Project to the farmers in the San Joaquin Valley. The total actual benefit those farmers receive can be measured by the amount their land increased in value—perhaps $780 million. But the cost to the State of supplying that benefit, the amount of subsidy it provides by picking up the difference between the real cost and the actual price paid, is several times $780 million. There are other consequences of providing these enormous subsidies. First, the big farmers are prime customers of the world's largest bank, the Bank of America. Insofar as the State subsidy enables them to extend their business, they borrow more money (for crops and equipment) from the bank, and extend the bank's near-monopoly hold over California agriculture yet further. Second, even with the huge subsidies, State water is so expensive that the only profitable crops these farmers can grow are presently high-priced "specialty" crops—fruits, nuts, etc. But the farmers who now grow these crops are mostly small farmers, who must gain enough income from 160 acres to support themselves. When the San Joaquin agribusinesses weigh in with their crops in the next few years, prices will plummet, and it is presently expected that thousands of these small farmers will be driven from the land. This has nothing to do with their efficiency, which rivals that of agribusiness in all areas except their ability to obtain credit from the Bank of America, and subsidies from the US Government.

SUBSIDIES TO SOME LOS ANGELES AREA WATER USERS

Firm	Water pumped per year (acre-feet ×$30=)	Water project subsidy/year
Container Corp. of America	1,323	$105,840
Fibreboard Paper Products Co.	1,521	121,680
Firestone Tire & Rubber	1,536	122,880
Flintkote Co.	2,567	200,560
United States Steel	1,791	143,280
Gulf Oil Co.	1,795	143,600
Richfield Oil Corp.	4,428	354,240
Shell Oil Co.	4,516	361,280
Union Oil Co.	2,670	213,600
Texaco	3,432	274,560
Standard Oil Co.	4,542	363,360

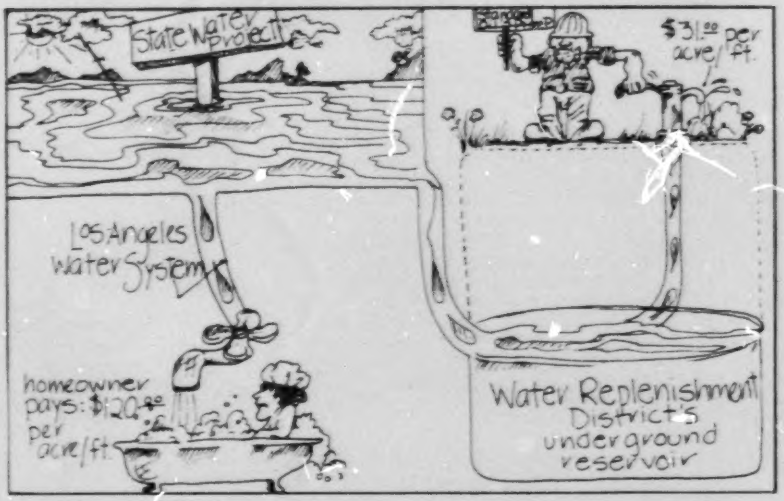
Note.—Californians never voted for the present project.

1. The administrative agency which evaluates public projects should not build or administer them, since the employment, power, and pretige which follow approval make powerful motives to evaluate favorably. Enact legislation establishing a State agency of Project Evaluation.

2. Require agencies which do evaluate projects to adhere to intellectually valid standards. Appoint a committee to create such standards (such as what the discount rate should be), and set regulations fixing adherence.

3. Create and enforce adequate laws against conflicts of interest, such as Mr. Krieger's. Professional societies, such as engineering associations and bar associations, should try to enforce strict ethical standards, since otherwise the bad drives out the good.

4. Provide the legislative water committees (and other committees) with adequate staff and funds to make their own thorough, independent evaluations of proposals. Neither the Senate nor Assembly Water Committees in 1959 had adequate staffs. Consequently the legislature had to rely on the DWR's word, as did the Governor. Independent consultants, who must please their clients if they want further consulting work, aren't much good, as Charles T. Main shows.


State Water Project
$31.00 per acre/ft.
Los Angeles Water System
homeowner pays: $120.00 per acre/ft.
Water Replenishment District's underground reservoir

THE FUTURE: PERIPHERAL CANAL OR PUBLIC VICTORY

The Project's past is a story of gross injustice and special interest favoritism, of outrageous costs and slim benefits. But the construction now or soon to be completed—Oroville Dam, San Luis reservoir, pumping facilities, the California Aqueduct, and trunk canals—has had little adverse affect on the environment (save possibly destruction of the salmon run up the Feather River). The future plans, however, threaten environmental disaster. Conservationists, who remained silent in 1960, have since become the leaders in opposition to the Project.

The future at present consists of four related Federal and State proposals, none of which have yet been authorized or funded, all of which can and should be stopped. All relate to the central mechanism by which both the State Water Project and the Central Valley Project operate—the Delta pool. Fresh water flows down the Sacramento River to the Delta, from which both the DWR and the Federal Bureau of Reclamation pump it into their respective canals for transport further south.

The projects relate to each other as follows: the US Bureau of Reclamation's project, termed the East Side Division of the Central Valley Project, would use up present Sacramento River supplies to irrigate yet more land in the San Joaquin Valley. That makes it necessary to agument the Sacramento's flow by diverting into it the nearest as-yet untapped river, the Eel—a presently wild river flowing through redwood country to the sea. One of the reasons the San Joaquin Valley wants to much water is that irrigation deposits salts and eventually ruins the soil (e.g. Mesopotamia) unless farmers "flush out" the salts with even more water. The Valley needs a sewer for the "flushed" salts, pesticides and other assorted poisons, and that's Project No. 3. As presently planned, however, this drain will dump its waste into the Delta, thus polluting the very source of San Joaquin Valley irrigation water. Even without the drain, however, engineers have found that the pumps for the State and Federal irrigation plans will be so powerful that long before they reach full capacity they will be sucking up saline water from the Bay. For these reasons, the Bureau and the DWR propose to build a *Peripheral Canal* to circumvent the Delta altogether and take all the unpolluted water they need directly from the Sacramento River. Without such a canal, it would be impossible to build the East Side Division, and unnecessary to attack the Eel. With the canal, the engineers can suck up ever-increasing amounts of water until they have drained the Eel, the Klamath, the Trinity, and even the Columbia for that matter.

These projects also threaten the Delta and San Francisco Bay itself. The Bay and Delta form one of the major estuary ecosystems on the West Coast, supporting millions of transient and resident birds and providing spawning or maturing ground for innumerable fish and other water beasts. The demands for fresh water now flowing into this estuary, facilitated by the Peripheral Canal, would drastically reduce the inflow. Ecologists present conflicting views on the effects, depending on who pays them (ecologists, too, are "experts"), but only those hired by the State or the Bureau show anything other than grave concern.

DECISIONS YET TO BE MADE

The Peripheral Canal cannot proceed unless three bodies decide in favor of it. The Governor is already on record as favoring it. The State Water Resources Control Board, which decides who has a legal right to the fresh water, is completing lengthy hearings to determine how much water the Delta has a right to "use," and how much the developers can take. Since the Board's appointees are mostly old water-developers themselves, its staff comes largely from the Department of Water Resources, and the law does not favor wildlife preservation as a "use" for fresh water, a decision adverse to the Canal seems most unlikely. The decision-maker most subject to present influence is the United States Congress, which must authorize the Canal and approve funds for it. Congressman Jerome Waldie of Contra Costa County has been leading the fight against the canal. In the House; both of California's Senators remain officially uncommitted.

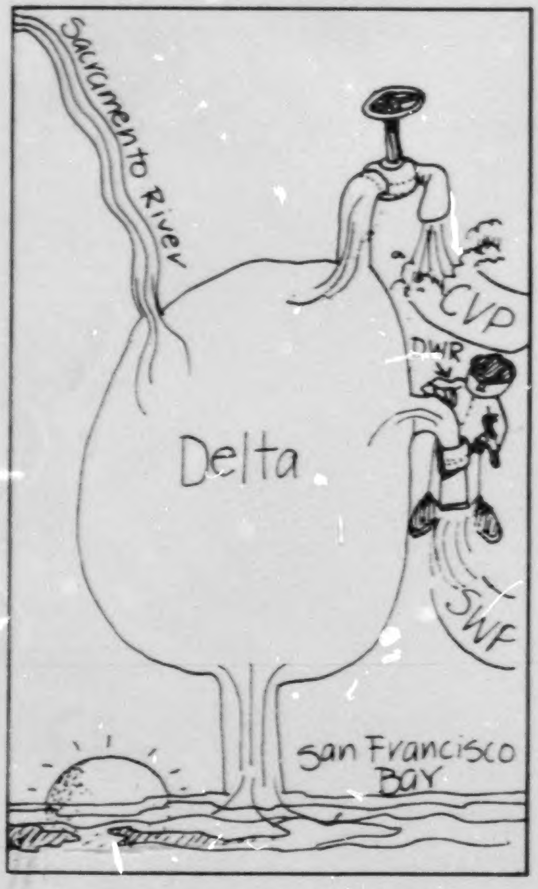
The East Side Division, which would be the immediate trigger for "development" of California's north coastal rivers, has not yet received even the Governor's approval. In fact, important California water figures, such as Secretary of Resources Norman Livermore and former Director of the DWR Harvey Banks, have expressed opposition to it, so there remains a substantial chance that Governor Reagan will veto it. Should he approve, the proposal would have to receive approval from both the President's Department of Budgetary Analysis and Congress itself.

The Eel River decision has an interesting history. In 1968 the Army Corps of Engineers proposed a dam on the Eel at Dos Rios. The dam would have some minor flood control function—the basis for the Army's interest—but

would serve mainly to collect the Eel's water so it could be tunnelled through the mountains to the Sacramento. The Corp's plans found some angry conservationist waiting. They didn't like turning one of California's last wild rivers into a dead and turbid like, destroying one of the few remaining salmon and steelhead runs in the State, drowning a beautiful valley, and displacing its Indian inhabitants in violation of their treaty. The Corps compounded its difficulty by presenting a particularly stupid and dishonest "evaluation" in support of its proposal, which was demolished by Harrison Brown and other economists sought out by the conservationists. The Corps also showed remarkable callousness to the Indians, proposing to trade them worthless mountainside land, from which they could tend tourists, for their Round Valley farms. As if all that were not enough, the Department of Water Resources chipped in with some transparently dishonest estimates of water "requirements" in Southern California, which it used to justify the development. Of course, the estimates proved transparently dishonest only because the conservationists had obtained a suppressed report, prepared two months earlier by the Department's Southern California staff, which showed requirements far lower than the Department was asserting. Although the Department attempted to discredit the report (and reprimanded its authors), it obviously played a role in Governor Reagan's decision to call for additional studies.

What man and god had shared.

While those additional studies; completed in 1969 by the DWR, again recommended Dos Rios, the Department has since issued its Bulletin 160–70, surveying and predicting all of California's water demands and supplies for the next fifty years. While still full of problems, this document is vastly superior to



anything the Department has previously concluded. Most importantly for Dos Rios, it draws upon revised population estimates and the more sophisticated analysis of the suppressed 1968 document to conclude that Southern California won't need any more water for at least ten more years. This in effect pushes the Eel River decision back several years, and relieves at least the immediate pressure for development. The report's conclusion may, have a similar effect on the Peripheral Canal, though the DWR and the Bureau of Reclamation won't admit that. Time is probably working against them, and if they don't get the Peripheral Canal soon, it may never come.

The Drain, once also a hot issue, has subsided for the present because Valley farmers appear unwilling to pay for it until their land becomes more obviously polluted. Some sort of drain eventually will be needed, but the solution to that problem will probably be to remove the salts and poisons in a treatment plant before returning the water to the Delta. The legislature and the Governor will make the primary decisions about the Drain, although the State's water pollution standards, and their enforcement by the Water Resources Control Board, may become important as well. The Peripheral Canal is the time and place to stop the State Water Project. To destroy our environment to enlarge such a con game for already-bloated special interests is a public obscenity. The cost of additional works will be huge. The DWR expects most of that cost to be met, not from Project revenues or bond issues, but from the public treasury, by way of a $680 million interest-free loan, now projected for use on Dos Rios. By stopping the Project now, the State can save itself the interest on that money—an amount well over a billion dollars. The State's present financial squeeze seems to be due largely to the Project.

What of Southern California's water "needs"? They should, at the very least, be recalculated with sound economic techniques. Bulletin 160–70 is a start. All indications presently suggest that "needs" can be met through available water in the South, at an economic cost comparable to that of Dos Rios or other State Water Project increments.

In conclusion, the prospects for stopping the State Water Project seem excellent. The Peripheral Canal, the East Side Division, and Dos Rios or its equivalent must all receive Congressional approval, and Congress has shown itself increasingly responsive to environmental considerations. Congressman Jerome Waldie has submitted positive legislation to give the Eel, Trinity and Klamath Rivers Wild River status. Should Waldie's bill pass, the Project could not draw upon their waters and would be effectively blocked. In addition, various people are trying to stop the Project through lawsuits. Perhaps one will succeed. Efforts on the State level, while more dubious, may have a better chance once the facts this Project penetrate the smog of deception which the DWR pours forth. Most politicians who favor the Project sincerely believe it is good; some, at least, can be persuaded otherwise.

As this study should make clear, the chief losers from the Project are Southern Californians, who must pay for it. Efforts by the Project's opponents to make this a North versus South battle only obscure that point, and of course place a majority of the State's voters firmly on the Project's side. But if the Project doesn't stop now, its continuation will have not only mistaken regional factionalism on its side, but economics as well. For once the basic pipeline from North to South exists, it may well prove cheaper to meet addi-

tional demands by damming another river, instead of initiating a whole new water supply system such as desalinization. The State has full plans for this further growth, outlined in a document entitled the California Water Plan. It will take all the remaining rivers of the North Cost—the Klamath, the Trinity, the Ban Duzen, the Mad, and the rest of the Eel—with unforeseeable effects on the climate, the beaches, the redwoods, the fish, and the other wildlife.

Steps individuals can take:

1. Write Governor Reagan opposing the East Side Division, and any development of the Eel.

2. Write your congressman and Senators in favor of Wild River status for the Eel, Klamath, and Trinity Rivers, and in opposition to the East Side Division, any Eel River projects, and the Peripheral Canal.

4. Californians, and indeed people in any State, should support legislation designed to divest public works agencies, like the Department of Water Resources, of their planning and evaluation functions, and to place these functions, for all kinds of public works, in one agency especially designed to do that.

5. Join or support organizations working against the State Water Project on the State, Congressional, and Executive levels. The individual hasn't a chance of influencing, say, the Department of Budgetary Analysis, but organizations, if supported, can hire the lawyers and staff who can. These include the Sierra Club, Friends of the Earth, the Committee of 2 Million to Save the Eel, the the California Planning and Conservation League.

NADER TEAM IS PLAYING NASTY GAMES

(By Allen Bottorff)

When Ralph Nader and his associates demand the complete abandonment of the California State Water Project—the completed features—those under construction—and still others on the drawing boards it is necessary for this Farm Bureau publication to offer an appropriate response.

We could do not better than to open the columns of the Farm News to the man who served as chairman of the Kern County Farm Bureau Water Problems Department from 1953 to 1961—Mr. Allen Bottorff. We present herewith what we consider to be a definitive document prepared by the Californian best qualified to undertake such a task.

Allen Bottorff is nationally recognized as a man highly qualified to discuss financial matters as they relate to water development. He is trained and experienced in accounting and business and operates his own 600-acre farm in the Button-willow area of Kern County. He has been closely identified with the State Water Project since 1952, was the first president and for 8 years a member of the Board of Directors of the Kern County Water Agency. At present he serves as consultant and authorized representative of the Agency on the State Water Contractors Audit Committee, of which he was for several years the chairman.

Mr. Bottorff serves on the State Chamber of Commerce Water Resources Committee. He has for several years been a leader in the California Water Resources Association and was an incorporator of the Water Association of Kern County.

We take pride in making available this carefully prepared document on the California State Water Project.

"NOW THE NADER TEAM IS PLAYING NASTY GAMES—WITH THE CALIFORNIA STATE WATER PROJECT"

Second-guessing is great fun. And it's easy, too. The devotees of this popular sport date back into antiquity. It's always been the delight of some people to step into the arena of life and snipe at the folks who are busy at the job of making that life more livable. A case in point is the great California State Water Project. Even this ambitious endeavor-carefully planned by the engineers and economists—debated freely in the State Legislature—aired fully in public hearings—given wide exposure to the people of the state—and then approved by a vote of the citizenry—has not escaped the hazard of the "second-guessers". At this late date, after 98% of the initial construction features are completed or well under way, the detractors are sending in their first-string "second-guessers" admittedly to scuttle the entire Project!

Just as the benefits of this great undertaking are beginning to be felt—just as underground water tables are beginning to feel its beneficial impact—just as the desert is becoming green and fruitful with the application of water which, if unharnessed and unused would run out to the sea—in come those who say that the whole Project is a fraud, a deception, a flim-flam, a windfall for the wealthy, and a congame. They point out how the Project can be stopped, and loudly claim that it should be, and that the chances of stopping it are excellent.

Of course, the "second-guessers" of this hatchet squad have one possible minor advantage—the advantage of hindsight—a luxury not enjoyed by those responsible in the first place for planning, authorizing and implementing the Project—and they have not lived with or built any part of the Project. And though they have gained some public attention by rushing into the arena, screaming at a high decibel level—they do have the disadvantage of being late. Now, if their purpose were to be helpful rather than destructive their tardy suggestions would rate some consideration and use to the extent yet found feasible.

This recognizes that, admittedly, no such project is perfect; and that any project might be improved. It also rightfully assumes that such criticisms are based on fair and honest appraisals of all facts concerning the undertaking. And it assumes further that the suggestions are not the result of contrived, distorted, inaccurate or incomplete information, or based on mistaken assumptions; and that they are not induced by motives geared primarily to the proposition of stopping the project or impairing its usefulness.

Unfortunately, a new grand-scale team effort is now in the wings, ready to make and publish major and serious charges against the State Water Project. Judged by the rhetoric already previewed publicly, the motives displayed and the methods employed do not add up to a serious effort to be constructive. The forerunner of this team effort is an article called "The California State Water Project" authored by a team member, Keith Roberts, a young San Francisco attorney. His blast at the efforts of California to solve its water problems appeared in a San Francisco publication called Clear Creek. The Roberts article was next reprinted in full in the Congressional Record at the request of Congressman Jerome R. Waldie of California's 14th District.

The introductory remarks of the Contra Costa County Congressman, as they appear in the congressional Record, hail and warmly embrace the Roberts Article. Waldie reveals the article to be a part of a larger Ralph Nader Report "Power and Land in California". At this writing the report has just been released by Nader's Center For Study of Responsive Law.

WHO BENEFITS—WHO PAYS?

The entry in the Congressional Record places Roberts in the role of skilled researcher and master auditor. One is given the impression that lone and careful study has been given by Roberts to all of the Project's financial aspects. These would include the fiscal and other relationships with local water agencies throughout the state.

His Clear Creek article casts him in the role of expert critic of the taxing policies of the State, the Agencies, and the Districts responsible for financial and taxing programs. The entire Project and many people and agencies connected with it are roundly attacked after the author perused what he has since referred to as the "rather profuse publications of the Department of Water Resources".

As we have since learned, Roberts engaged in only limited conversations with informed officials concerning the Project. It stands to reason that a governmental department charged with the responsibility of planning and constructing so huge an undertaking as the California State Water Project would, of necessity, be obliged to prepare and issue voluminous reports. Also it can be categorically said that no one in a few short weeks could, without a background of years of day-to-day experience and familiarity with the Project, hope to absorb and pass judgement on the reports and the Project in all its ramifications. Yet this very feat Roberts would have us believe he accomplished.

At this writing it is not known what the full thrust or impact of the complete Nader Report will be, but we do have before us the Roberts section which now has become an important part. To get the feel of Roberts reporting let us look at his conclusion as found in the first sentence of its closing paragraph. He admonished his readers to "Join or support organizations working against the State Water Project. . ." The organizations named as deserving such support are: The Sierra Club, Friends of the Earth, The Committee of Two Million to Save the Eel, and the California Planning and Conservation League.

It is indeed disconcerting to contemplate the probability that many present members of these organizations may have been induced to join these efforts on the basis of such misinformation and brainwashing as is found in the Roberts writings. Many present members probably joined years ago because the organization appealed to their love of Nature—a love shared by many of us who are not members. Now they find themselves saddled with policies with which they perhaps would not agree if given the full facts. Which leads to the further observation that this latest blast adds no new lustre to the Nader reputation.

Mr. Waldie, in introducing the Roberts article in the Congressional Record, quotes from an interview with Mr. Robert Fellmuth, chief co-ordinator for the Nader study, who said concerning it: "The key principle we are seeking to implement is this: when someone receives a benefit from public money he should pay according to the benefit". The implication is clear that the Nader team would have us believe that the State Water Project clearly fails to meet this principle.

A little reflection, however, will establish that the application of this principle in government is more often noted for its omission than its commission, yet the fact is that the State Water Project more nearly exemplifies this principle than any other government program, with the possible exception of some toll bridge programs.

It is notable that the arguments advanced by Roberts have as their central theme that the Project is rife with "special interest favoritism" and "subsidy to large landholders", that "outrageous costs and slim benefits" mark the Project's development and future; and that it does a gross injustice to the California taxpayer. Plausible cause, indeed, for scuttling the State Water Project, and most appealing to the average citizen—if true! Fortunately such charges are completely untrue!

To set the record straight will be the primary purpose of this article. It will advise both member Roberts and the Nader Team, as well as the general public, concerning some of the facts overlooked in the Roberts article, and some of the errors and incorrect assumptions it contains. In what ways the Roberts article is wrong will be established through point-by-point analysis of its charges. No attempt will be made, however, to respond to them all. Other observers may have an interest and some responsibility in this matter.

THE LABEL AND THE CONTENTS

First in line is the Roberts charge that the State Water Project, as it is being developed, is something "quite different" from what the legislature authorized and the people voted upon. Frankly, nothing in this article tells us that he has the haziest notion of what was actually authorized by the legislature or approved by the people. Let us inform him: They authorized and voted for "The State Water Resources Development System for the State of California".

Of what does this system consist? The answer: "The State Water Facilities as defined in Section 12934 (d) and such *additional* facilities as may now or hereafter be authorized by the Legislature as a part of (1) the Central Valley Project or (2) the California Water Plan and including such *other additional* facilities as the department deems necessary and desirable to meet local needs, including, but not restricted to, flood control, and to agument the supplies of water in the Sacramento-San Joaquin Delta and for which funds are appropriate pursuant to the Act".

The Act, as approved, which is actually a document of ten closely-printed pages, describes both generally and in some detail the State water development system which it authorized. It lays down the rules for its construction, operation and maintenance and for its correlation with the State Central Valley

Project which was authorized by the Legislature and passed by a vote of the people nearly four decades ago. This latter act had been a part of the law for years—unused because no market existed for the bonds it authorized during the depression years of the early Thirties.

The State Water Resources Development Bond Act is a big order. One and three-quarter billion dollars of general obligation bonds were authorized to "assist" construction of the system, of which the State Water Facilities are but the initial unit. The State Central Valley Project Bond Act provided for Revenue Bonds, but it has been of assistance to the financing program. Obviously, such a broad authorization can have different meanings for different people.

However, the very broadness of the concept denies anyone the right to charge that the State Water Project, as it is being developed is something "quite different" from what was intended.

At the time this Bond Act was voted upon by the people of California the State Water Facilities were necessarily described in general terms, reflecting the accomplishments expected of the Project rather than specifying details. Since that time the original outline has been judiously filled in with more specific plans and specifications. Additional capital funds have been appropriately raised for provided through the early State CVP Bond Act or other legislation as contemplated in the 1960 Water Bond Act. The genius and foresight of those who conceived and planned the Project can be attested to by the lack of necessity for major changes during the 11 years since passage of the bond measures.

Changes made were dictated largely by changing circumstances over the past decade. None were made willy-nilly or to deceive; neither were they made without the benefit of public hearings; nor were changes made except as provided by existing law or new legislation.

Thus, let us dispose of all argument that the Project is "quite different" from that sold the public. Its variations from any early norm were expected, and provided for either in the Act, or by new legislation, duly approved.

Late-comer Roberts is wrong in saying otherwise. Second-guessing may be fun; it may be easy, but it can and did lead to false conclusions!

HOW MUCH WILL THE PROJECT COST?

In his related complaint Roberts says the Project will cost close to ten billion dollars, instead of the two billion the people thought they were approving. He further asserts that the people were not told about interest costs. How ridiculous! Any reasonable assumption would be just the opposite.

The public was not then, and is not now, confused into believing that the cost of the Project should be expressed as the sum total of all present and future costs—including capital costs, operating, power, maintenance, replacement and interest costs from 1960 to date and for the next 65 years. Nader authority Roberts should know this to be true yet he does not, for he includes all of these costs when he mentions his ten billion dollar figure. By doing so he shows that he is the one confused. It can well be mentioned here that also during that 65-year period, with cool heads prevailing, more than 200 million acre feet of water will have been conserved and transported to points of use along the California Aqueduct. Not a bad accomplishment for ten billion dollars—or whatever the exact final all-inclusive cost may be.

As we continue to review the questions raised by Nader's writer concerning matters of costs and their propriety, we should discuss the distribution or charge-out of these costs along with certain factors that are extremely pertinent. First, it should be known that for many years expenditures made by the State for construction and operation of the State Water Project have been under reivew by internationally recognized, independent certified public accounting firms hired under contract by either a single agency or by a group of agencies that have contracted for water supplies from the Project.

During these years of investigation both the amounts and the methods of distribution of costs among the contractors for project service have been regularly examined and reported upon to the participating contractors. Nothing is known of any effort on the part of Roberts or any other Nader team member to consult with the agencies involved in these audit programs or any member of these auditing firms to assist his review of fiscal aspects of the Project. Had Roberts done so, he might have written a far different article, or perhaps, none at all.

In any case, had they contacted persons in the contracting agencies involved in the audit programs, their understanding of the Project might have been substantially enhanced.

A second important factor is the Water Service Contracts executed by the State and the 31 Agencies or Districts engaged in receiving and distributing State Project Water. Under these contracts these governmental entities are committed to pay ALL capital costs of the Project allocated, in accordance with the Act and other particulars of law, to the water supply functions of the Project. Presently this is estimated to be about 90% of all capital costs plus interest. We refer to all capital costs to date, and such future capital costs as are projected, together with interest at the project interest rate—from the date incurred until paid in full, plus all related operating, power, maintenance and replacement costs, payable as they are incurred.

Quite clearly these water service contractors and their constituents have been aware of this obligation including the interest payment requirement, for it comes about through the contracts, all of which necessarily were approved by public bodies and several of which had to be further approved by the people. Further, the Districts Securities Commission and its successor, the Districts Securities Division, State Treasurer's office, which review the financial details of such agencies prior to their going to the market with their own securities to finance their own construction programs, is fully informed, concerning this commitment to pay such interest as is the public through their hearings.

As noted, this accounts for about 90% of all Project costs. What about the other 10%? From the C.P.A.'s audit reports, as well as from State Department of Water Resources publications, it may be learned that Project costs allocated or anticipated to be allocated to others than the water service contractors and reimbursed by them will amount to about 2½%. Costs allocated to non-reimburseable functions, such as recreation, fish and wildlife enhancement may amount to about 7½% of the total project capital costs and related operating, maintenance, power and replacement costs during the 75-year period. Incidentally, the FULL cost of mitigating any damages from the Project to fish or wildlife is entirely at the expense of the water service contractors. Only enhancement values are not reimbursable by the contractors. Every step in the procedure of allocating costs to non-reimbursable functions is controlled by law and accompanied by public hearings.

What about the costs of these non-reimburseable functions, who pays them? Generally speaking, the public at large will pay such costs. This public also includes those who reside in areas served by State Project water—the same people who participate in repaying, in full, the remaining 90% of costs! Thus the principle of "they who benefit shall pay according to the benefit received" is reasonably complied with in this situation.

The non-reimbursable functions are those providing benefits that redound to all the people of California and therefore are quite properly recovered from the State's taxpayers as a whole—with the exception of the costs of flood control which are paid by the United States Government as a matter of national policy. These monies are collected from taxpayers nationwide.

NO INTEREST ON THE TIDELANDS FUNDS?

A third factor which also refutes Roberts' charge that State money advanced to the Project, such as Tidelands Oil and Gas Funds are provided interest-free, concerns the utilization of such funds, how the interest charges actually apply, and what they accomplish.

First, it should be made clear that use of Tidelands Oil and Gas Funds for part of the capital for Project construction was both contemplated in the early years of Project formulation and provided by legislative action. Actually, a portion of this support was drained away by subsequent legislative action at a time when the State Budget needed help. Many view this action as a violation of a previous commitment of such funds to the Project.

These commitments of State support were made on the theory that a revenue derived from a State non-replenishing resource, such as oil and gas, could be put to best use by investment in a premanent asset such as the State Water Project. Apparently these facts are unknown to Mr. Roberts.

However, because of the way the water service contacts are written, neither the source of Project construction funds, or any particular legislative require-

ments concerning their repayment, really controls the charges to the water supply contractors with respect to interest. This is due to the fact, as pointed out earlier, under the water service contracts, interest charges begin to run on costs and are charged to the contractors immediately when such costs are incurred for Project construction. Thus one of the important purposes of the independent C.P.A. audits of the State records is to precisely determine the date and the amounts in which such costs are incurred.

Now that we know the water service contracting agencies must pay such project costs WITH INTEREST, it may be asked, whatis done with the interest earned—what becomes of the repaid funds? To respond, briefly, it is necessary again to refer to the California Water Resources Development Bond Act which, paraphrased, says that such revenues, together with any net revenue derived from power shall be deposited in a special account or accounts in the California Water Resources Development Bond Fund. Then they may be used for the following purposes only, and only in the following order:

Priority No. 1.—Maintenance, operation and replacement costs;

Priority No. 2.—Annual payment of principal and interest on bonds sold under the Act;

Priority No. 3.—Transfer to the California Water Fund money to reimburse funds utilized from this fund for construction of the State Water Resources Development System.

Priority No. 4.—Any surplus revenues not required for the above purposes, and not required to repay the General Fund for State advances for payments on Bond principal and interest; shall be re-deposited in a special account and such funds are then appropriated, and available for future construction of facilities of the continuing State Water Resources Development System.

All of these revenues constitute a trust fund pledged for the above purposes and uses and further pledged as security to the owners and holders of the issued bonds.

All fiscal operations of the State Water Project are required to follow these priorities and rules. Thus, expended Project funds return to the Project in full circle, augmented by extra interest earned along the way. DWR Bulletins of the 132 series fully describe this process, both on a historical and projected basis extending through the period from the year 1960 to the year 2035.

These bulletins have several purposes, among which is the technical support of the charges regularly billed to the water service contractors. Auditors for the contractors closely review the bulletins and comment on their contents as they relate to the propriety of such charges.

Both the text and tabulations of series 132 bulletins tell many interesting things about the State Water Project, particularly when they are correctly interpreted. Bulletin 132-71 issued by the Department in May of 19[illegible] forecasts the grand total of the Project net revenues, or surplus at about $2,567,000,000 for this 75-year period. Of this amount about $1,067,000,000 (the amount of its advances), will be returned to the California Water Fund in accordance with Bond Act priority No. 3 requirements. This fund may be again drawn upon for future Project facility construction or, as an alternative, it may be appropriated by the State Legislature for other purposes entirely, in which event it would no longer be available to the Project.

The remaining surplus, projected at about $1,500,000,000, will be retained in Project funds in accordance with Bond Act priority No. 4 requirements. Such funds may be drawn upon for construction of additional facilities of the State Water Resources Development System in future years. The need for Additional Project Construction is now estimated to materialize beginning about 1996.

It is particularly worthy of note that when, in the future, money from neither priority 3 or 4 sources is expended on later Project facilities, interest again begins to accrue on the amounts allocable to the water supply function and chargeable to the water service contractors. Thus the refunding and net revenue circle begins again.

One item of record, which may be related to the Nader team's mistaken theory that the Project's cost is ten Billiaon, instead of two Billion dollars, is found in Bulletin 132-71. It indicates that Project gross revenues for the period 1960 to 2035 are anticipated to toal about ten billion dollars! Note, particularly however, that this is revenue—gross income—not costs.

This bulletin also projects total operating costs at about $3,135,000,000 during the period; projects bond service principal repayment at about

$1,672,000,000; and projects bond service interest at about $2,649,000,000. The remainder, projected at a little more than $2,500,000,000 constitutes the project's net revenue or surplus mentioned above.

The anticipated Project gross revenues are derived from the following sources:

Projected Reimbursements To Be Largely Derived From Payments by Agencies Contracting for State Water Service

Delta water charges (capital costs reimbursement, including interest)	$2, 397, 017, 000
Delta water charges (operating costs reimbursement)	450, 977, 000
Transportation charges (capital cost sreimbursement, including interest)	4, 048, 541, 000
Transportation charges (operating costs reimbursement)	2, 496, 554, 000
Total reimbursements to the State by the contractors	9, 393, 089, 000

Other Revenues as Projected

Davis-Grunsky loan repayments	$53, 753, 000
Recreation, fish and wildlife enhancement (subject to legislative approval)	118, 963, 000
United States (San Luis share of operation)	126, 560, 000
Miscellaneous income, including interest earned and Oroville net power revenues after year 2018	319, 599, 000
Total projected revenues	10, 011, 964, 000

It may be noted that the terms *anticipated* and *projected* are emphasized. The purpose is to draw attention to the fact that all future values here shown are *anticipated or projected* on the basis of Department of Water Resources' latest studies. Their assumptions may vary somewhat during the next 64 years, however, their estimates have been pretty good so far. The DWR fully explains the assumptions it uses in the development of these projections.

Obviously, the details cannot be fully reviewed here. Suffice it to say that the Department's projections are believed to be reasonable and adequate for their purposes.

THE DELTA POOL EXPLAINED

At this point a question may be raised concerning the propriety of accumulating the huge net revenue or surplus *projected* from operations of the Project. Both the justification and the necessity for the procedures which make possible this projected net revenue, or surplus, arise from the *Delta Pool Concept*—a built-in feature of both the State Water Resources Development Bond Act, which the public approved in 1960 and the State Water Service Contracts. Essentially this concept established the principle that, when the supply of water available to the State Water Project at the Delta of the Sacramento and San Joaquin Rivers is diminished below the entitlement levels called for in the Project water service contracts (primarily anticipated because of possible increased up-stream or Delta use) additional facilities shall be constructed to conserve, transport and make available a new supply of water at the Delta pumps sufficient to make up the shortage.

The added cost of this new supply is then blended in with the Delta charge already applicable, with the result for all State Service Contractors that a new, probably higher, Delta water charge becomes effective, based on this new average cost. At the same time, if late-comers desire to use a portion of any newly developed extra water supplies provided by the system, they can do so at no greater cost for conserved water than that which must then be paid by the other earlier contractors receiving water from the Delta.

It has become a matter of great concern to the contractors that, though they have fully assumed the obligation of future increased Delta water costs under this concept, they now are faced with a call for the shut-down of the entire Project and a struggle to ward off those like Nader, Roberts and Waldie and others who would make it utterly impossible for them to fulfill their commitments to their own water users—or the late-comers.

The provision of the Act and the water supply contracts which require the accumulation of funds for future Project facilities in this manner to augment the supply of water upstream and in the Delta, together with the averaging of both early and late costs among the early contractors and newcomers, mainly upstream, are the practical means provided for the fulfillment of the Delta Concept.

Had the Nader Team writer consulted with the Project's auditors or with knowledgeable officials of the Department of Water Resources, or the water service agencies involved in the program, or had more thoroughly studied the documents related to the Project, possibly many of these matters would have been clear; and he might not have felt compelled to charge "gross injustice" and "special interest favoritism" in the construction and operation of the project.

From the beginning of Project planning it was generally recognized that costs to the areas of water use would be high, particularly because there would be no way for them to avoid the interest costs of the program. Moreover, an important natural water resource would need to be conserved at great expense, transported long distances, lifted for service to some areas as much as 4000 feet.

The objective agreed upon by the water supply contractors was that the State would develop and deliver this water at the lowest cost possible and the contractors would pay properly allocated costs consistent with a policy of fairness to all; and by all was meant the entire State of California.

It is true that construction costs have risen across the nation in the past 11 years. Increases in the projected interest rate also have occurred. On the other hand, some savings have been achieved in Projection operational costs, with the end result that unit values per acre foot have been containd within acceptable limits.

This was the objective of the California Water Resources Development System from the beginning. The record this far has been an excellent one, in spite of such charges as the Nader report puts forth.

Perhaps many of Roberts' compalints against both the Project and against those who have participated in its development, will fall of their own dead weight with this better understanding of the Project and its future.

WHO PAYS FOR THE POWER?

The argument Nader's team member Roberts offers that purchasers of electric power will pay 100% of the costs thereof is of no great moment—they *should* do so. Actually, from the Bulletin 132 series we learn there may be some extra revenue to the Project from power, particularly during the later years, but such revenues would not have been possible had there not been a Project and the vast participation of the water service contractors. Furthermore, vastly greater amounts of Power are required for operation of the Project than it will produce. Always it was expected that the power produced could be transmitted and used for project pumping or the value thereof could be converted to dollars—particularly when higher peaking values could be realized—then used for purchasing of other more conveniently located or lower costs, off-peak power.

His arguments that local taxpayers in the Project service area will pay taxes to support their Agencies' water service contract program is doubtless true in varying degrees—but why should there be any complaint about this?

Where such agencies will supply water for municipal and industrial purposes, their billings from the State are on a type of advance repayment schedule. Many of the agencies pay vast sums to the State under their contracts before receiving a drop of State Project water. Consequently they must levy taxes to do so. These advance payments, however, effectively reduce the total interest costs they must pay on their proportionate share of all capital costs allocated to water supply and ultimately this will reduce water costs within such agencies.

On the other hand, the tax base of water agencies serving agricultural water users from the Project is generally insufficient to permit such advance payment; therefore, their contracts with the State have been geared to a longer payment program. The effect of this deferment is an increase in ultimate costs to the agricultural areas served, because of the longer repayment period, and consequently they must pay greater interest charges with higher total water costs over this period.

Experience does indicate, however, that some taxes will be levied by agencies serving agriculture to assist their porgrams for providing and distributing water. Their taxing policies appear properly to be matters of local determination, subject to the general or specific laws governing such agencies.

ZONES OF BENEFIT

Nader team member Roberts makes the ridiculous off-hand charge that the Kern County Water Agency plans to collect a third or more of the State bill for Project water service by levying ad valorem taxes. It is true the Agency may levy some ad valorem taxes but only in accordance with certain special limitations and hearings provided by the Kern County water Agency Act, described below in more detail. However, the Agency's present projections indicate that not more than 13 to 15% of funds required to meet State obligations will be provided by this means. It is plain to see that these projections differ radically from Roberts' claim that one-third or more will be collected in this manner.

How does the Kern County Water Agency proceed under its Agency Act? First, certain steps must publicly be taken; and certain conditions must exist before any tax may be levied for the purpose of making any payment to the State under the Agency contract for water service. Prior to any such tax levy, the Agency must hold public hearings.

These hearings, must be held by the Agency Board of Directors, and supplemental hearings may be held by the Kern County Board of Supervisors. As a result of such hearings and public participation, zones of benefit may be established and ad valorem taxes may be levied within such zones for the purpose of assisting in payment for State Project water service.

However, such taxes must be based solely on benefits to be received from the Project. In the establishment of the zones of benefit within which taxes may be levied, there *must* be taken into account the following requirements:

(a) Improvement in the underground water supply.

(b) The contribution to the underground water supply made available independently of the agency.

(c) The adequacy of the water supply made available independently of the agency.

(d) The prospective need for a water supply.

(e) Extractions from the underground water supply in excess of contributions.

(f) The economic impact resulting from the water supply made available under such contract or contracts; *provided that areas not* receiving a surface water supply or an improvement in the underground water supply by reasons of such contract or contracts *shall not be assessed pursuant to this particular subsection.*

Any fair-minded consideration of these stringent requirements should lead to commendation rather than condemnation of the Kern County Water Agency's practices. Such consideration would also reveal how completely nonsensical is Roberts' charge that the Agency was formed expressly to let its agricultural users draw on the Bakersfield tax base. Possibly the City area could be determined as within a zone, or zones of benefit established through the above outlined procedures, whereupon a portion of the ad valorem taxes levied could thereby relate to the Bakersfield urban area. So long as this is done in accordance with the Agency Act requirements; however, certainly there is nothing improper with that. The voters approved this procedure long ago when they voted in favor of the Kern County Water Agency Act in the first place, as did the Superior Court later when, in a lawsuit protesting a tax levy, it sustained both the Agency's procedures and the Act.

BENEFIT—OR BOONDOGGLE?

When discussing such matters as the determination of Project benefits, it is indeed disappointing to note Nader team member Roberts' complete failure to recognize many of the valuable benefits that flow from the Project.

Nader's lieutenant Roberts acknowledges no general-type economic benefits from the Project, and no benefits to agri-businesses and their employees from a strong agricultural economy sustained by Project water; he admits to some benefits for water users, but only those received by the larger landholders, particularly the larger corporate landholders, the special interest water users, or the land speculators; he acknowledges none of the benefits that may accrue to the smaller, mill-run type landowner, or farm operator.

Nader's analyst Roberts seems also to be totally unaware of any benefit from the Project received by recreationists, or achieved through Project enchancement of fish and wildlife.

While he acknowledges some benefit may be received by the Project builders, he makes no reference to the millions of man hours for which good wages were paid to thousands of people employed in this endeavor.

Neither does Roberts recognize any possible benefits from the Project in the way of flood control or salinity repulsion.

His super-failure, however, is his *omission* of any reference to the tremendous benefits received by the *public at large* from farm production made possible by State Project water in the San Joaquin Valley, or elsewhere, where its use may be feasible despite its higher level of cost. In the valley, because of this water, farms, large and small—corporate, individual, or partnership in ownership—now contribute substantial amounts, and later promise to provide greater amounts of food and fibre essential to human life and elemental in the economic prosperity of county, state and nation.

USERS—LARGE AND SMALL

The farming industry is not static—great changes constantly occur; among these, the loss of farmland to urban and industrial use, parks, highways, and airports, to name a few. Changes occur, too, in the capacity of lands to produce, whether from cropping patterns, pests, weed intrusion, air pollution, or what not.

Without defending or criticizing the rights of the larger, or the smaller farm operators, or the right of corporations to participate in this changing pattern, or the right of any farmer to share in the production of farm produce needed to make up some part of the deficiencies arising because of these changes, without fear of contradiction, it may be said that the farm products resulting from this activity give greater strength to our state and nation.

Project water is really needed by many farms that have been in production for a long time; and it is essential to any additional agricultural growth. It will, when received, overcome increasing groundwater deficiencies that have been developing for years, threatening thousands of productive acres.

As one well-informed Kern agriculturalist analyzed it: "water represents a basic resource necessary not only to develop new acreage but also to sustain acreages in Kern County. It is known that the native aquifer is declining annually both in depth and quality and can now be projected to a date of potable unuseability as well as economic limits for agricultural use. This means that without project water to supplement our native supply—agriculture in this area is terminal."

Speaking to the general question of new land development as well as continued production on older lands, and, further, to the question of large vs. small farm operations, he added: "The development of new agricultural acreage is often associated with 'oversupply' in terms of agricultural production. The term 'oversupply' connotes that waste will be associated with increased production and that supply is actually greater than demand in a physical sense. Actually, supply will equal demand at a certain price. 'Oversupply' also neglects factors of quality and implies that all agricultural products are the same. If an increased supply means somewhat lower prices to the farmer, the ultimate benefactor will be the consumer. The development of agriculture in California with new production methods means better availability and higher quality products for California and the rest of the nation. Further, the statement that small farmers will be driven out of agriculture 'by the thousands' is misleading. Some of the less efficient producers will not be able to match new production or quality standards and will leave agriculture. This type of process has been in existence throughout the history of free enterprise agriculture. It has meant that the general public is better off in terms of quantity, price and quality of goods produced." (end of quote).

The closest Nader's Mr. Roberts comes to admitting any benefits from Project water is when he says, in his Clear Creek article: "While many people ultimately receive this water, the *only ones* who benefit are those who receive substantially more or substantially cheaper water than they would get without the Project." Admittedly, under such circumstances, when they exist, a benefit would be established; but such circumstances fail to account for many other benefits to many others that accrue within the Project service area.

At another point in this article he says: "The Project does not really benefit the average Southern Californian. But the Project does benefit two classes which use large amounts of water: Large landholders and water-using businesses." While he acknowledges some of these beneficiaries are in Southern California, his choicest barbs are thrown at the San Joaquin Valley where he says: "the major beneficiaries are the corporate farms." Accepting data prepared by others in 1959, *he flatly but falsely declares the total acreage of such corporate farms served by the State Water Project is more than 2½ million acres.*

Without intention at this moment of either defending or condemning the larger corporate farms—but simply because I detest exaggeration and falsehood, I would say, right here is a good place to draw the line—the place to declare, as General Anthony McAuliffe once declared at Bastogne, "NUTS".

It's time for Roberts' credibility to be examined: (1) because he fails to notice obvious benefits available now, and increasingly to become available from the Project; and (b) because he blandly accepts and brashly reports irresponsible computations by others that 2½ million acres of corporate held acreage is served by the Project. This is drastically more acreage than the sum total of all acreage to receive such service in the San Joaquin Valley.

First, it can be acknowledged, without prejudice, that larger corporate farms do exist in the valley and they do include considerable acreage that may be served by Project water now, and later. They employ a substantial number of people, generally at good wages. Some of these corporate farms are large—some of them relatively small. Also, there are many other farms in the valley that receive or will receive, Project service that are not corporate-owned. Some of these are large—some are small. They, too, employ many people, generally at good wages. They are all a part of the economy of the valley.

Second, the entire water supply to be provided in the San Joaquin Valley from the Project is only sufficient to serve about 500,000 to 600,000 acres with a full supply—based on a maximum use of about 2½ acre feet per acre—a minimum for successful farming. Many properties, whether owned by large or small operators, however, will not receive a full supply; therefore, it may be reasonably estimated that a maximum of 700,000 to 800,000 acres may ultimately be served to some degree by the Project.

This *total acreage*, is *less than a third* the corporate acreage alone claimed by Roberts to be served by the Project.

But that is not all.

More exact information on this question is available from the Kern County Water Agency which, through its member units and improvement districts, will distribute about 80% of all San Joaquin Valley delivered Project water. This Agency's recap indicates that all larger corporate landholdings to be served by the Project within these Kern districts account for not more than about 225,000 acres. Some of this acreage will receive little, if any, Project water—other such acreage perhaps a full supply.

The larger corporate holdings in the San Joaquin Valley other than those in Kern County, but served by water districts receiving State Project water, although substantial in acreage, account for far less Project-served corporate acreage than that served in Kern County—perhaps as much as 100,000 acres in total. Accordingly, a fair estimate of all larger corporate landholdings receiving State Project water would perhaps be something in the order of *325,000* acres in the Project's San Joaquin Valley service area—far less than the 2½ million acres Roberts claims would be supplied.

Obviously Nader team member Roberts is guilty of irresponsible reporting on this score. No more irresponsible, however, than with respect to many other charges he leveled in his Clear Creek article and now used in the Nader report.

This disposes of questions concerning the actual acreage of larger corporate landholders served by the Project. Admittedly these corporations do engage in farming—many have done so for many decades. They have committed their resources to payment of the cost of Project water with interest in accordance with the water pricing policies and taxing policies of the respective agencies or districts serving them.

In view of these facts, Nader's team member Roberts, however, lays an egg when he charges these corporate landholders receive great subsidies and other unearned benefits.

To respond to the Roberts charge that Kern County agricultural water users abnormally benefit from a subsidy of $20.00 or more per acre foot through Agency or State malfeasance, requires stating again that, neither under the State Water Service Contracts, nor under the KCWA-member unit contracts, is there any prospect of any such subsidy. Additional proof that no subsidy exists, could be demonstrated by further analysis of the pricing and taxing policies of each Kern County Water Agency member unit district, but this can hardly be undertaken here.

It is sufficient at this time to indicate that basic policies by which these member unit water districts are guided are essentially the same as those which control the Kern County Water Agency itself and many other water districts in California. Essentially, this policy calls for payment of all properly allocated costs by those who receive the benefit—the "Fellmuth principle", if you will.

SURPLUS SUBSIDY?

However, the charge Nader team member Roberts tries to establish concerning an alleged State impropriety and a vast subsidy to users in State delivery of Project surplus water at a reduced charge of about $4 an acre foot requires attention. His claim that Project surplus water is not surplus in reality but is firm water instead, worth full price, calls for answer. His basic contention is, that water labeled surplus water by the State is not actually surplus because it would always be available except in an extremely dry year.

Why this is incorrect, and why surplus water has greatly reduced value, and the considerations that must be taken into account when considering its actual availability, will be explained here: First, it should be pointed out that water charged for, at so much per acre foot, is not the way the water bills from the State to the agencies read.

Instead, each contracting agency is billed in full, with interest, for its proportionate share of costs of conserving the water, and its proportionate share of the costs of transporting it to the takeout points serving the Agency's service area.

Thus the capital costs of the Project, with interest, which are paid for on a deferred basis, and the operating costs of the Project, which are paid for on a semiannual or monthly basis, are fully paid by such agencies, each to the extent it is required to share in such costs under its contract, and regardless of the exact amount of water actually received.

In effect, as Prudential would say, each agency is buying "a piece of the rock", or as the younger generation might say, "a piece of the action." The fact that no title to this capacity is conveyed by the State to the Agency does not diminish the fact that, when an agency assumes such an obligation under its contract with the State, it becomes entitled to use of a specific share of the capacity of the project transportation facilities as specified by the contract, while it also assumes, and must pay the capital costs with interest and the related fixed operating costs, regardless of whether its water entitlement is fully received or not.

If Project firm water is short of meeting a contractor's entitlement, the variable transportation costs (large power costs) would not be charged.

Why then, under such circumstances, should not facilities and service thus paid for be used to provide surplus water when available? As this question is examined, it should be pointed out that many physical or regulatory factors, some of which are unknown in advance, can have a bearing on the amount of surplus water available at the Delta.

One physical factor is, that the State Water Project is not a gravity system—instead it depends on massive pumps and electrical energy to deliver water. The pumps may fail, or the electric energy may not be available or the power contracts may not permit the supplying of power for pumping surplus water even though the water is available at the Delta, even when aqueduct capacity to move the water is available.

We can remind ourselves that rulings of the State Water Resources Control Board, or other agencies, may affect water availability. We also know that, under the State Water Service Contracts, the agricultural water supply must suffer the first deficiencies as compared to municipal and industrial supply in the event of drought and water shortage. This reduction is without benefit of any reduction in the fixed charges to the contractors for related capital costs or operation costs of the Project. Those that would like to use surplus Project water must consider these hazards and these unrewarded costs. They cannot agree that surplus water is dependable. While they plan to make use of some surplus water, when available particularly in early years of the Project when local distribution costs, too, are burdensome; and while they hope surplus water will be available later, they also must hedge, by maintaining costly wells and pumps, to provide the dependability needed, even though they may not use them. Obviously, too, surplus water will only be provided by the State when it is amply available. All of this speaks eloquently for making surplus water availabwe to users at lowest cost whenever all circumstances permit its use.

AUTHOR'S NOTE

The Nader Report released August 21st damning the State Water Project every conceivable way—along with almost everything else in California as well as defaming just about everyone having anything to do with the Project, had not been released at the time of the writing of this article, now re-titled by the author to read: "Now The Nader Team Is Playing *Nasty* Games—With The California State Water Project."

The author was verbally advised, however, on August 6th, that release of the Nader Report was anticipated "the latter part of the Month." He was also told through that same phone call to the Washington, D.C. office of the Center for Study of Responsive Law, when talking with Robert Fellmuth, the Nader Report's chief co-ordinator, that Keith Roberts' Clear Creek article inserted in the Congressional Record May 24, 1971, by Contra Costa County Congressman Jerome R. Waldie, had been fully accepted as the basic thesis for the Nader Report's section on the California State Water Project. Necessarily, however, at the time of the preparing of this article for publication August 27th in the Farm News it could only be written under certain restraints, because the Nader report was as yet unnublished, but the Roberts article was in full view.

With the current flood of releases and press conferences fully reflecting the relationship between Nader and team member Roberts, readers of this response may now rationally interchange the name Nader with Roberts, and vice-versa, as they consider what is said here. It is now abundantly clear that the views of both Nader and Roberts, and the pseude-facts and distortions presented both in the Nader Report and the Roberts article are identical. This thought now comes to the author as the fire-storm set off by the Nader Report burns on: "The game they play is with matches."

Third, is yet another overriding consideration—the economic preservation of a natural resource—groundwater. Considering the fact that the recovery and use of groundwater involves substantial cost for pumping and, at times, costly conveyenance there are good and substantial reasons for providing surplus water at the lowest possible cost—both for direct replenishment of groundwater, and for direct application of such water to permit less pumping than would otherwise be required.

By so doing, the groundwater resources of the State, as they exist in the many service areas of the Project, can be conserved and, in the course of time, the public benefited. In the meantime, no harm is done to anyone; no new costs are imposed on any except those who may benefit. And those who benefit stand to gain no more than they should all things considered. Why then, complain?

STOP THE STATE PROJECT?

Nader's author Roberts has made it abundantly clear through his Clear Creek article, that his conclusions are based on certain prejudices, and certain objectives. He states clearly that his motive is to stop the State Water Project. He aims to reduce the taking of water from the Delta, even though the water service contractors have footed the bill to conserve it. Among his methods, the stopping of the Peripheral Canal is considered by him to be a key necessity.

To defend the Peripheral Canal concept point-by-point will not be an objective of this article. Again too much space would be required and the readers should not be further burdened at this time.

However, one observation may be in order, namely, this: The State Water Resources Development Bond Act and the System it contemplates will take care of the problems of the Peripheral Canal, and indeed there may be some, in a way that will be fair to everyone. Roberts is foolish in trying to contend otherwise, just as many of his other complaints about the Project are foolish.

Perhaps we should not blame him too much for his misconceptions. The State Water Project, is indeed, a complex and massive undertaking. Perhaps its workings are not readily apparent to the casual student. But perhaps what has been written here will serve to accomplish in a small way a needed part of the understanding that is desirable.

THE PROJECT—BANE OR BLESSING?

Personally, I think we can be very proud of the State Water Project—proud of the water pioneers, the engineers whose early studies led to its concept, and the engineers and officials, and all persons involved in its construction and operation to this day. We can also be proud of legislators who approved the Bond Act in 1959 and have steadfastly kept the Project on course. Too, we can be proud of the voters who approved this measure in 1960, and who later have been called upon to ward off measures that would have crippled the State Water Resources Development System.

Continuing, I think we should appreciate and be grateful for the Project's capacity to serve so many people throughout so much of the State, now and in the future. We should recognize with appreciation the important part played by the water agencies and districts in this program, many of which have as their primary purpose the serving of State Project water to their areas. Likewise, we can be proud of the officials of these agencies for their unselfish work in behalf of their constituents. Credit is due the great state of California for its part in the Project.

But the capstone on this huge structure consists of the many people throughout the service area who have accepted responsibility for repayment of so large a share of the cost of the California State Water Project.

This report through the courtesy of the Water Association of Kern County and the California Water Resources Association

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CALIFORNIA ACTION, INC.,
San Francisco, Calif., September 24, 1971.

Mr. ALAN BOTTORFF,
The Farm News,
Kern County Farm Bureau,
Bakersfield, Calif.

DEAR MR. BOTTORFF: To try in a few brief pages to rebut all of the misconceptions, distortions, deceptions and falsehoods in your attack on my report would be futile. I would like, however, to touch upon the highlights. If, as the Kern County Farm Bureau maintains, you have written the "definitive rebuttal" to my report on the State Water Project, my criticisms stand confirmed for you have not made one accurate, proper or meaningful criticism of that report.

To begin with, the lead headline "Nader Seeks to Sack Project" is misleading. I do not advocate sacking the State Water Project. I do not advocate leaving the present pipes to rust in the desert. What I do advocate is not expanding the Project any further.

You challenge my cost figures by mistakenly assuming that I included operating costs in the construction costs of the Project. Mr. Cianelli has had available since May a detailed appendix showing exactly how I arrived at every figure I use on the State Water Project. He has not found it possible to make any objejection to these figures, and one reason is that I do not make such elementary errors as confusing construction costs with operating costs. For the rest, you seem to agree that the Project will cost much closer to $10 billion than to $2.8 billion. Your excuses for constantly reciting the latter figure as the cost have little merit.

In the first place, you say that nobody is deceived because the water agencies with their battalions of experts know the true cost. I do not dispute this, but few people are familiar with water agencies and what their hired experts say. The people deceived are not the hundreds who might know what water agencies are doing, but the millions who know only what the Department of Water Resource's propaganda proclaims.

In the second place, you, together with Mr. Cianelli of the Department of Water Resources, claim that because cars, refrigerators and houses have been sold without stating the sum of the interest to be paid, it is proper to sell the State Water Project in the same way. Neither of you seems familiar with recent trends of law, however, since the Federal Truth in Lending Act and laws in various other states have now outlawed precisely this practice on the ground that it is deceptive, misleading, and fraudulent to the prospective buyer. If you will examine the sales of houses in California you will notice that the price of sales in interstate commerce includes a statement of the aggregate interest—precisely the statement lacking for the State Water Project. But omission of the interest charges on large construction projects is even more deceptive. When buying a car or a house the aggregate interest does not amount to as much as the basic sales price. When buying a huge construction project with interest to be repaid over a period of 60 years or more, however, the cost of labor and material is almost insignificant in comparison to the cost of capital—that is, in large construction projects capital is the largest single cost factor.

It is convenient for the Department of Water Resources to neglect interest costs because the omission diverts attention from the huge State subsidy by virtue of interest free loans. You say that Water Project customers will repay the amount of the State loan with interest, and suggest that therefore the loan is not interest free. But to whom is that money repaid? It is not repaid to the General Fund nor even to the Tidelands Oil and Gas Revenue Fund which made the loan originally. As you yourself show, repayment either directly funds existing Water Project obligations or goes into a fund for future additions and extensions to the Water Project. Thus, while the water contractors pay the interest back to the Department of Water Resources, the Department of Water Resources is not required to pay it back to the State and to the State's taxpayers who made the loan in the first place. And that is why it amounts to an interest free loan.

Who pays the costs? I claim that taxpayers will pay between half and 65% of the costs. You do not seriously deny this allegation. You simply ask, so what?—and deny that this amounts to a subsidy to large water users. Let me take these points in order because they are distinguishable.

Several general objections can be made to taxpayers paying for the Water Project. The most basic is quite simple. The Department of Water Resources and other water leaders have constantly suggested that the public was not paying for the Water Project. This falsehood now stands exposed.

Second, tax subsidy removes freedom of choice and distorts the true demand for water. That is, a person involuntarily paying half his actual water costs through the tax rate, as in Southern California, perceives his water charge as being only half the true cost. He therefore uses more than he would if the water were fully priced and he spends more on water than he might if he had the choice to make himself. And in the absence of a clear picture of true demand—as created by the amount of water people are willing to buy when it is fully priced—water agencies must substitute their bureaucratic judgment. In Southern California this has proved disastrous.

The gist of your defense of the tax subsidy centers on the practices of the Kern County Water Agency. You manage to convey a thoroughly erroneous impression of what my article actually says. Although I am generally critical of subsidizing water users—particularly large water users—I said in my article and in the Nader report that the citizens of Kern County, and particularly Bakersfield, could rationally decide to subsidize surrounding farmers. In other words, Bakersfield can make a resonable decision to subsidize its farmers. But most other sections of the State, such as Southern California, cannot—simply because the return for their subsidy is neglible and indirect. In Kern County, however, the economy obviously depends on the well being of the local farms and if that well being requires cheap water, the citizens can rationally decide to subsidize it. Subsidizing water for the Kern County Land Company is equivalent to accepting lower wages. Local citizens can decide to do either.

Surprisingly, you also dispute my claim that the Kern County Water Agency was formed primarily to allow the Bakersfield tax base to subsidize the large water users. I had not thought this to be a matter of dispute. It was openly admitted to me, and as I said above, not necessarily a bad thing. The subsidy arises in the following way: Bakersfield will use approximately 10% of the Kern County Water Agency water. It is taxed on its property base, however, at the same rate as all but one of the other water districts within the Kern County Water Agency. Consequently, it pays 30 to 40% of the total taxes absorbed by the water agency. This amounts to subsidy. By my calculations, based on Kern County Water Agency figures, the total tax payments to the agency in 1970 amounted to $6.90 for every acre foot of water that the agency receives from the State. The agency pays an average price of slightly over $21.00 am acre foot for this water. Thus, my statement that 33% of the water is subsidized.

I rather resent your attempting to distort my comments about the Kern County Water Agency in an article for publication in the Kern County Farm Journal. In fact, I had some rather nice words to say about the Agency. Let me quote the conclusion to the Task Force Appendix on the Agency:

"Task Force finds little fault with the Kern County Water Agency's internal operations. There are some questions about the extent to which Kern County voters were aware when they adopted the Agency in 1961 that its purpose was to subsidize Kern County landowners or how wealthy the major recipients would be. On the other hand, if there was deception it amounted at most to obvuscation, rather than outright dishonesty, and the voters have ended up with a water operation which may be of benefit to them all. Aside from this possible problem, the Agency deserves praise for its intelligent structure and fair operation. Of course, whether Kern County should be receiving these benefits at all, or as many as it does receive, is another question discussed elsewhere."

One final point about use of the tax subsidy. You attempt to justify it on the long-since discredited ground that a tax subsidy is necessary in the early years to permit a long term project, such as the State Water Project, to be built. Have you never heard of revenue bonds? Economists—at least independent economists—claim uniformly, so far as I know, that an economically worthwhile project should be able to finance itself.

Furthermore, your statement that advanced payment on these projects saves the taxpayers' money is absolutely outrageous. For what you say is precisely the opposite of the truth. While advanced payments through taxes reduce *project* interest costs, they increase *taxpayers'* costs. Consider: the Project pays about 4% interest on its tax exempt bonds. Prepayment 10 years before actual use thus saves 4% over 10 years. But the taxpayer who is paying this money for 10 years must borrow at 8% or more to make up for what he is prematurely paying.

I won't in detail list all of the project benefits which you claim that I did not consider, but which in fact I did consider. Suffice it to say that I considered every benefit you have named except one. This one benefit you describe as the construction benefit. In economic terms, however, there is no such thing. The reason is quite simple. The cost of construction is equal to the benefit it brings. Consequently, construction cost always balances benefit. Moreover, the construction benefit would be the same if the money were spent building a State Water Project, a bridge to China, a pipeline to India, or any other project. When I speak of benefits and costs, I am using the economic term and I'm using it to measure the value of this project to the general public. In such a measurement construction benefits, as you put them, have no place—simply because the same expenditure on some other project would have equal benefits or perhaps even greater ones.

One other benefit you claim I neglected—my "super failure"—is the agricultural benefit. Perhaps my use of economic terms rather than Chamber of Commerce blurbs misled you. For indeed I included these benefits in my calculations. Actually, the calculations are not mine. They are the calculations of Bain, Daves and Margolis, three extremely reputable economists who studied California's water problems intensively, and also the calculations of Professors Hirshleiger, Milliman and DeHaven who are located in Southern California and have likewise studied California's water industry intensively.

I cannot resist adding, however, that these benefits tend to be vastly overstated because they do not take into account the enormous losses which will result from the State Water Project. I am speaking specifically of losses to small farmers. The State Water Project will irrigate primarily huge tracts of land owned by corporate giants such as Tenneco, Standard Oil, Union Oil, Southern Pacific Land Company. These tracts, many of which presently stand barren will be planted to high value crops. The high value crops will drive present prices through the floor. When the price falls, small farmers without outside income lose their farms while the large corporations can use their outside income to sustain them during this time, and later find themselves with exclusive control of the almond, grape, nut or other high value type of crop. This effect of the State Water Project, according to Professors Deane and King of UC Davis, will be extremely costly indeed.

You have also distorted my land ownership point. I never claimed that every acre in the 2 million acre State Water Service Area would receive State Water Project water. Indeed, the proposition is ridiculous on its face. I did claim and still maintain that the concentrated nature of land ownership in the State Water Project Service Area is a clear reflection of the concentration of land ownership in the areas which will actually receive the water. Indeed Kern County Water Agency's figures confirm what I say. Out of 418,170 acres in Kern County slated to receive State Water, 73% of the land is held by owners of more than 160 acres. For the Central Valley as a whole, 76.5% of the land receiving State Water is excess acreage. It is a fair assumption that in Kern County, as in the State Water Service Area as a whole, 6 enterprises, counting a group of 5 or 6 oil companies as 1 enterprise, own ⅓ or more of the land which will receive this water.

Finally, we come to the surplus water argument. To me, surplus water is the most subtle and outrageous subsidy in the entire program. Here your main defense seems to be that since each agency is *entitled* to a proportionate share of surplus water, it is fair that all pay proportionately for the costs of constructing the system to deliver that surplus water. Which is like saying that a resident of Bakersfield should pay taxes to San Francisco for maintaining Golden Gate Park since he is *entitled* to use it as much as any San Franciscan. To quote you: "In effect, as Prudential would say, each . . . is buying 'a piece of the rock,' or as the younger generation might say, 'a piece of the action.' "

Well, everyone may be entitled to their share of surplus water but only a few districts have the capacity to absorb it. As a result, if you count surplus water deliveries, Kern County will receive ½ of all State Water deliveries between now and 1990; whereas it pays only 25½ of the Project's construction costs. I consider this an enormous subsidy. Nor is a subsidy of this extent justified by the fact that surplus water need not be delivered and need not be delivered convenient times. Certainly those facts suggest that some reduction in price might be appropriate; they do not suggest that the State deliver the water simply at cost—which is precisely what it is doing. In any event you grossly exaggerate the possibility that surplus water may not be available. The Project has been planned so that surplus water will be unavailable only if we have a reappearance of the driest draught year ever recorded for the State of California.

In conclusion I will issue you a challenge, Mr. Bottorff. You have joined other chief water developers in this State, men like William Gianelli, Ralph Brody and Governor Brown in attempting to refute my arguments. You have said nothing that does so, although you have managed to distort what I say. Face me in debate. At any time, any place, before any audience, in any forum that allows time for fair comment and reply. If you prove me wrong or mistaken in any respect, I will happily admit it. If you could show me that the State Water Project is, in fact, a good project, I would be very happy; for my own ego's stake in being right is far less important than the State's loss.

Sincerely,

KEITH ROBERTS.

Senator STEVENSON. Mr. Meral, would you like to proceed next.

STATEMENT OF GERALD H. MERAL, ENVIRONMENTAL DEFENSE FUND, BERKELEY, CALIF.

Mr. MERAL. Thank you, Mr. Chairman.

I will try to summarize my remarks and submit a copy of my testimony for the record.

Senator STEVENSON. It will be entered in the record following your testimony.

Mr. MERAL. The Environmental Defense Fund is a group of scientists and lawyers concerned about the deteriorating quality of our environment. We are very much concerned about the agricultural overdevelopment. We have recently joined a group supporting the national legal enforcement of the 160-acre limitation.

California is the Nation's leading agricultural State, and things that happen here often presage developments that will happen elsewhere. I will try to discuss three facets of California agriculture: The environmental effect of small versus large farms; the need for further irrigated agriculture; and the environmental effects of constructing more irrigation projects.

Human resources are among the most valuable we have. A number of witnesses have discussed the Arvin and Dinuba study and I would like to reemphasize the importance of that study and urge the committee to fund further studies of this nature. This study is getting quite old now. I know of no updating of it and I think it is quite vital that this study be updated not only in California but in other parts of the country.

Concerning the natural environment I would like to talk about three things briefly.

First, when there is a pattern of small farms on the land, especially in the Midwest, not perhaps so much in California, there is more habitat for local wildlife and other animals since there are hedges, fences and outbuildings to provide cover.

Second, in comparing small versus large farms, there is an increasing rate of fertilizer used as farm sizes increase. I have included this data in table 1 of my text. This is quite important in the Central Valley, because as more fertilizer is used the higher the nitrification of the soil becomes. The disease methemaglobanemia, a blood disease which particularly affects infants is prevalent when nitrogen levels in the drinking water become high.

Another point with regard to small versus large farms is the use of pesticides. I will attempt to persuade Prof. Richard Norgaard, who was to testify on the importance of the use of pesticides in the Central Valley, to submit some testimony.

Let me turn to something that is perhaps more relevant. Mr. Rosenberg discussed the over-all water problems in the State. Mr. Roberts discussed past water problems. I would like to talk about what is going to be happening in the future.

In general the state of agriculture in California is not particularly good. This is shown by data on income, land value, and equity. My first chart shows total California farm income, adjusted to 1967 dollars. Despite the fact that we have had a very rapid increase in irrigation and other types of agriculture in the State, we have a steady decline in farm income between 1950 and 1970, and it should be noted this decline is increasing rapidly. The last two figures are projections for 1972 and 1973 done by the Bank of America.

Not only is farm income decreasing, but so is the value of farm land, which I consider an indicator of health of farming economy. The second figure shows the value of the farm land adjusted to 1968 dollars (deflated by a price index). It shows a number of different types of farm land over the entire State, orchard and groves, truck industrial farming, cotton and peaches and so on, barley and other grains and, finally, pasturage. There is a steady decline in the value of irrigated land, between 10 and 20 percent over the last 4 years.

As you might know, there has been a land boom in California rural subdivisions and so on. This farm land value is in direct contrast to this other trend of increasing land value in the State.

There is a final sign to ill health in the State's agricultural economy. This was discussed by Mr. Long. I am not too sure where he got his figures this morning, but he said they were generally unavailable. I find that they are published by the State Department of Agriculture.

The average investment of a California farmer is about $260,000. When you consider the cost of his labor and management, his return, as Mr. Long pointed out this morning, is about 3 to 4 percent. This is a very low figure for a high-risk, high-fixed-cost business such as agriculture.

Taking recent trends into account, I would like to look to the future of agriculture in California.

Keith Roberts pointed out that there have been an increasing number of studies at the University of California at Davis showing we are faced with an excess of irrigated agriculture in the State. Part of this depends on how many people actually live in the State. In the past 2 or 3 years there has been a very marked decline in the number of births and in the number of marriages in California, despite the fact the postwar babies are now coming into the supposedly reproductive state. For ZPG enthusiasts this is fine, but for the farmer this may not be so good, because if he is planning to open new production the market just may not be there at all.

Dr. Gerald Dean from the University of California at Davis (in a new publication) states by the year 2000 we may have between 1 and 2 million excess acres of irrigated land in the State of California. This is an enormous excess acreage, and the competition for small farmers who do not receive any Government subsidies for crop support or water is going to be tremendous.

One of the causes of excess acreage, as Keith pointed out, is the state water Project. But I don't think we can do much about that any more.

I would like to look at the next step, which will be undertaken by the Bureau of Reclamation, that is, the proposed east side division, which I have illustrated on a map of California. This consists of three reservoirs and the delivery system. The reservoirs are the little dots and the delivery system is a very long canal running down the east side of the valley. The Bureau of Reclamation is reticent, I found, about talking about how this water will be used, but, having dug back in the 1958 report which they merely summarized and did not submit to Congress, I found that they proposed to use this new water for cotton, oranges, alfalfa, and irrgated pastures.

It has often been pointed out that many of these crops receive the most support in the Department of Agriculture subsidy program, and, indeed, the total subsidy cost in California for cotton, wheat, and feed grains in 1970 was over $100 million. In addition there were 200,000 acres removed from production and another 6,500,000 acres of potentially producing land put in the conserving base.

Given these facts, do we need more irrigated land in California?

The Bureau of Reclamation argues that rather than cotton, more specialized crops should be grown. Mr. Roberts, in his report, mentioned that the high-priced specialty crops, walnuts and so on, also face serious excess problems. As a matter of fact, excess problems in California agriculture are getting so bad that this past year the legislature for the first time enacted a strong peach marketing order which was vetoed by the Governor.

Nevertheless, expectant cling peach farmers are pressing quite hard for some restriction to this new acreage. Facing them, of course, is the Bureau of Reclamation pressing quite hard.

I would also like to submit along with my testimony some chapters from the recent Nader report on the Bureau of Reclamation called "Damming the West," which outlines these problems in much greater detail.

(The material referred to appears in the appendix.)

Finally, I want to briefly mention technical problems. The Bureau of Reclamation has told me 90 percent of this new development water will go to replacing groundwater supplies which are presently overdrawn. However, examining their own data and that of the U.S.G.S., I find there is a rapidly decreasing problem with respect to overdrawing groundwater. Groundwater in California has been a very critical problem because in some places there's been a decline in a rate up to 100 feet a year in the groundwater table.

This problem seems to be coming to an end partially due to more professional groundwater practices and also due to new service and supplies. I think the giant East Side Division will not be required to solve the groundwater problems of the state.

I have tried to illustrate at least the reasons why there is no need for new major irrigation projects in the Central Valley at this time, despite proposed legislation by Congressman Sisk to authorize the East Side Division.

Let me just briefly mention the environmental effects of new projects. The first problem is in the south end of the San Joaquin Valley, which the East Side Division would service. This is the problem of soil salinity. Soil is quite saline down there and, if there is a lot of water and no drainage provided, the soil becomes unfit for any kind of agriculture at all. Perhaps it would only be fit for subdivisions around Bakersfield.

The second problem is that the East Side Division is under construction, although not authorized. That is, the two reservoirs, Auburn and New Melones, are under construction and are authorized to supply water to the East Side Division. If these reservoirs are constructed, another 55 miles of wild river in California will be gone forever.

The most crucial problem environmentally is that of the San Joaquin and Sacramento Delta, where the Sacramento and San Joaquin join and flow out into the bay. Mr. Kerry Mulligan, who is the head of the State water resources control board, has in recent speeches made it eminently clear if the East Side Division is constructed, especially the East Side Canal, it will be absolutely impossible to preserve delta water quality without creating new dams on the north coast of California. This is proposed legislation in the House which would preserve these wild rivers in northern California. If the development of these new irrigation projects are necessary, I contend it will make it impossible to preserve the last remaining wild rivers in the state.

Finally, let me talk about the effect of irrigation developments on farmers and farm workers. I have already discussed the present trend of the decline of farm income and land prices. Due to trends in mechanization, which we have heard a lot about today, we have been faced with a steady decrease in farm employment. In 1966 farm employment was 401,000; in 1969 it was down to 384,000, despite the increased farm acreage. This decline was all in the class of farmers and seasonal farmworkers. Permanent farm worker is not a declining class of employment. As the number of farmers declines, it becomes increasingly more difficult for a farmworker to become a farmer himself, if that is, indeed, his goal. I believe that one of the causes that has been discussed many times today is this inability of the farmworker to gain land upon which they can grow crops is the nonenforcement of the 160-acre limitation. The Environmental Defense Fund intends to press quite strongly for enforcement of this law and we are pursuing this effort in court right now.

Let me close with two suggestions for your subcommittee.

First, until farm prices and income stabilize and begin to increase, any new irrigation projects in California should be rejected.

Second, if the Federal Government wishes to aid the farmer and farmworker, then it should reverse the present policies of nonenforcement of the 160-acre limitation, of continuing to increase irrigation projects while subsidizing crops produced by these projects, and of wrongly favoring the environmentally unsound large farm over the more manageable small farm.

Senator **Stevenson**. Thank you, Mr. Meral.

I believe it was Mr. Roberts who acknowledged the vital importance of water in the West, water not only for farming but also for the urban consumers of water. It may be that the cost and benefits of the water projects were maldistributed to acknowledge a need for water. How do you get water? Desalinization is a long way off.

Mr. **Roberts**. Actually, there are several answers. In the first place, need is not absolute; people do not consume 160 gallons a year regardless of anything else. The price of water has something to do with it and, if you charge a price for water which reflects a price for delivering it, it turns out that the need for water in California would decline markedly.

I will give you an example. A number of industries in the Los Angeles area use enormous amounts of water, hundreds of millions of gallons per year. It would cost them relatively little money to convert to systems which don't use much water at all. For example, Kaiser Steel has a plant at Fontana near Los Angeles which uses very little water, yet United Steel consumes several thousand acre-feet a year. The cost of the conversion is nowhere near the cost of supplying them with all of that water and, if they had to pay the full cost of all of that water, they would rapidly convert. That is point one.

The second point is that there are many sources of water which have not been tapped. One example, the Bureau of Reclamation official said, if you just line the irrigation canals in the Coachella Valley, which is way down south there, you would save 300,000 acre-feet a year, which is something like 900 million gallons a year.

Third, the present law in California is such that water gets used extremely wastefully. I don't know if this has been discussed before here, but under the law the first person to use water gets to essentially own that water as long as he uses it, regardless of what he uses it for. Therefore, a guy is using water which may only have a value of $1 an acre-foot for him, but has to keep that water even though another guy may be willing to pay $10 an acre-foot, and he can't sell that right. Those are problems.

Looking to the future, I personally don't like to look more than about 30 years to the future because it is so hard to predict what is going on and reducing present calculations of what the values of activities are at that time is a meaningless exercise, really, but it is obvious from the type of experiments going on that desalinization is a good possibility. Of course you must emphasize very little money is being spent on this very good possibility. The State Department of Water Resources has spent less than a million dollars on this in the last 10 years.

Senator STEVENSON. My impression is, and I am not sure it is terribly important at this point, that many people are spending large sums of money trying to perfect feasible means of desalinizing water. The work is being done in other countries. Some of the techniques contemplate use of nuclear power, which might create some environmental problems, too.

What effect would enforcement of the 160-acre limitation have on the rate of water consumption in California, if any?

Mr. ROBERTS. It is a question I haven't given a great deal of thought to. I don't offhand see why there—there is not a great effect one can detect except in this sense. The enforcement of the law, and, by the way, that means enforcement, effective enforcement, would obviously split up the large land holdings. Smaller users, according to Mr. Meral and other studies, tend to be more efficient.

One aspect of the efficiency of the farm is the way you irrigate. If you irrigate one way, you can probably use half of the water you will use by irrigating another, and it seems more likely that the smaller farmers might be more efficient. But I would have to check that; I don't know whether I could make that statement.

Senator **Stevenson**. I certainly don't know, but I think it might have the opposite effect, it might increase the consumption.

Mr. **Roberts**. Why would it do that?

Senator **Stevenson**. By helping reverse the outmigration trend, keeping people on the land and in the small towns, and increasing if not the agricultural consumption, the other forms of consumption.

Mr. **Roberts**. In California I think 88 percent of all water is used for agriculture, so you could increase that all you want and it would not have much effect.

Senator **Stevenson**. Perhaps so, if your assumption about the efficiency of the little farmer as a water user is a fair one.

I was very interested in your figures on land values. These figures are in variance with all the experience and information we have received about the land values in the other parts of the country. Elsewhere it appears, almost universally, land values are rising very rapidly, partly, it appears, as a result of the advent of corporate landowners not just farming, but the advent of corporations in rural America, whether it is for farming or for recreation or timber or the exploitation of minerals. Are the declining values in California in part due to a general economic condition and in part perhaps also due to the fact that this particular land does not have alternative uses or speculative value that land elsewhere might have?

Mr. **Meral**. That is a very difficult question to answer. I only learned of this data myself a few weeks ago. I might add the source of it is the Farm Real Estate Market Development of the USDA from this last August. I think both of those factors are, to some extent, a problem. Speculative land in California is found mostly in the Sierra foothills and around cities where the climate is somewhat more amenable. Land in the valleys is extremely hot during the summer and not much good for recreation during the winter, so there isn't quite the speculative use in most areas.

However, I think the principal cause of this decline is simply a surplus of irrigated acreage in California as I discussed earlier, and this decline seems to be accelerating at least in some crops, although there is a fair amount of variation. I think this is going to continue as long as new acres come into production, and, I might add, we are faced with a certainty of about half a million new acres being put into production within the next 10 to 15 years due to already constructed projects. This doesn't take into account the possibility of construction of new projects such as the East Side Division.

Senator **Stevenson**. Do you have any figures on the rate of land acquisition in the valleys of California by the corporations? They can, I suppose, accept the risks that are apparently pretty significant in farming? The return on investment is not high. You are subject to all sorts of uncertainties, subject to losing money, and other risks that the little fellow can't afford to take. What is happening?

Mr. **Meral.** I just don't think I am competent to answer that question. Perhaps Keith, having worked with the Nader team, can do a little bit better.

Mr. **Roberts.** I don't have data on how, truthfully, large corporations are buying up land in the valleys, but I think I can explain something of what is happening in terms of why they might find it attractive to do so.

The basic reason, I think, resides in the tax laws. Unlike any types of business, if you make a capital investment in agriculture, that is, you plant trees or you buy equipment, you can deduct that as an ordinary expense item against your other income; like Tenneco, if you have other income, it is nice to make that deduction. Then when the capital item has blossomed into use, you could theoretically sell it and you could reap a gain that would be taxed at a much lower rate than ordinary income is taxed; it is taxed at the capital gain rate. For that reason, even though you operated a farm at a loss of $10,000, let's say, if you lost $10,000 on your operation—I will give you a money example—and your taxes on ordinary income are 50 percent, that loss then amounts to only $5,000 loss of real money because you deduct it against your ordinary income. So now you have lost $5,000, by the operation, but you have improved your land by an amount of $10,000. Let's say you sell it for that $10,000 increase, you are only taxed on the increase 25 percent, or taxes $2,500. So I think the figure comes out to be that you end up with a $2,500 gain, even though you have had that big a loss on your land, and that is profitable if you have lots of acres. I think that is one of the major factors that are at work.

I think another probability here which is that there is an effort by some companies, Tenneco, as an example, to develop a vertical integration control of an item from the soil to the housewife, as it were, and I think that may be a long-range strategy of some corporations, although I don't have access to their deliberations.

Senator **Stevenson.** Thank you very much, gentlemen. You have contributed to a very important aspect of the problem under investigation by the subcommittee, and the issues you have raised cannot be overlooked by those who share a real concern about what is happening in rural America.

(The prepared statement of Mr. Meral along with other material follows:)

Statement of Gerald H. Meral

Staff Scientist

Environmental Defense Fund

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Testimony Delivered Before the United States Senate Committee on Labor and Public Welfare, Subcommittee on Migratory Labor.

January 11, 1972

San Francisco, California

My name is Gerald H. Meral. I am Staff Scientist for the Environmental Defense Fund of East Setauket, New York; Berkeley, California; and Washington, D.C. I wish to thank the Committee for extending an invitation to present testimony on current trends in Western Agricultural development. The Environmental Defense Fund (EDF) is a non-profit, public-benefit membership corporation organized under the laws of the State of New York, with principal offices in New York, Washington, D.C. and California.

EDF is vitally concerned with agricultural development since it affects so many important human and natural resources. As an indication of our involvement, we recently joined a group supporting the legal enforcement of the 160 acre limitation.

California is the nation's leading agricultural state, and developments here often presage developments in the rest of the country. My testimony will discuss three facets of California agriculture: the environmental effect of small versus large farms; the need for further irrigated agriculture; and the environmental effects of constructing more irrigation projects.

I. The Environmental Effects of Small Versus Large Farms.

Human resources are among the most valuable we have. Various witnesses have discussed the implications of Goldschmidt's landmark study of the sociology of Arvin and Dinuba. I wish to re-emphasize the importance of the main finding: communities of self-employed farmers are far more stable and provide a higher quality of life than communities of workers for large agribusiness corporations. The latter have higher percentages of migrancy, fewer locally controlled businesses, and are generally less desirable. I urge the committee to consider some means of having more such studies undertaken, especially since the percentage of corporate agriculture is increasing.

In terms of the natural environment, I wish to mention three points. First, when small farms are the pattern on the land, there is more habitat for local wildlife, since hedges, fences, outbuildings, and so on provide more cover.

Second, the rate of fertilizer use increases as farm size increases (Table 1). Fertilizer use in the Central Valley is the prime cause of increasing nitrification of ground water supplies. Increased ground water nitrates causes methemaglobanemia, a blood disease particularly affecting small children. So called "organic farming", which de-emphasizes the use of fertilizers and pesticides, would relieve this situation to some extent. But this type of farming seems only to be practiced on small farms.

Third, a similar situation seems to prevail with the use of pesticides, whose public health and environmental effects are increasingly well known. More data is needed on this problem, but as other witnesses have and will testify, pesticides are usually used more carefully on small than on large farms, to a large extent due to more personal involvement of the small farmer with his workers. I need hardly point out that the best way to preserve the amenities of the small farm is through enforcement of the 160 acre limitation as required by the Reclamation Act of 1902. This act is now being flagrantly violated throughout California and the West.

II. Is There a Need for Further Irrigated Agriculture in California?

I wish to discuss this topic generally, and specifically with respect to the proposed East Side Division of the Bureau of Reclamation.

The present status of California agriculture is not particularly favorable. This is shown by data on income, land values, and return on equity.

Figure 1 shows the realized net farm income of the State's agriculture industry. This is during a period of great agricultural expansion, mainly due to the opening of Federal irrigation projects. Net income has actually shown a steady decline, and recently is declining even faster. While this is in part due to declining farm prices and increased costs, it may also be due to increased production driving down prices. In any case, it seems reasonable to conclude that farmers would do well to keep new land out of production until total income stabilizes or begins to increase.

Not only is farm income decreasing, but so is the actual value of farm land, another indicator of the health of the farming economy. Figure 2 shows the value of irrigated farm land for the major crops in California over the past four years. A decline of about 10 to 20 percent is noted, although most land prices in the State have risen markedly. If new farmers are paying less for irrigated land, we may again conclude that farmers would be well advised to keep new land out of production until land prices stabilize.

A final sign of the ill health of the State's agricultural economy is the return on equity farmers receive. On his average investment of $260,000 the California farmer makes about 3 to 4 percent, when the cost of labor and management are taken into account. This is an extremely low figure for such a high risk, high fixed cost business as agriculture. Taking into account the present somewhat tarnished picture of the Golden State's agriculture industry, let us look to the future.

In the past two years there have been an increasing stream of reports from the University of California at Davis which show that the State faces a serious surplus of irrigated acreage, especially if present trends continue. Last year for the first time a bill passed the State legislature which would have made possible some State acreage limitations. It was vetoed by the Governor. One reason for the oversupply of irrigated acreage is the decreasing rate of population growth in the State and the Nation. The most recent data show a very encouraging picture: the rates of marriages and births in California are declining steadily. If the present trend continues California could move to the lower end of the D schedule of population growth in the next few years. But this good population news is bad news for the farmer who has opened new production, or is planning to produce more in the coming years. The markets will simply not be there. Recent reports by Dr. Gerald Dean among others indicate a possible surplus of as much as 500,000 irrigated acres by 1980 and a million irrigated acres by the year 2000. This will mean strongly increased competition for State farmers, and a decline among those who do not receive government subsidies such as crop support or underpriced water.

One of the prime causes of this excess acreage is the State Water Project, which will deliver water to hundreds of thousands of new acres on the west side of the San Joaquin Valley. But that project is now nearly complete, and very little can be done about it.

The next large scale agriculture development is the Bureau of Reclamation's proposed East Side Division of the Central Valley Project (Figure 2). This project would take water from rivers in the Sacramento and San Joaquin Valleys, transport it around the Delta, and send it down the East Side of the Valley in a new Canal to serve areas of the south San Joaquin Valley. The Bureau of Reclamation is reticent about discussing how this water would be used, but Table 2 shows their own figures. Cotton, oranges, alfalfa, and irrigated pasture would be the most important crops produced with the new water. But some of these crops are highest on the Department of Agriculture subsidy program. Table 3 shows the amounts of money paid out in subsidies to cotton, wheat, and feed grains in California in 1970: the total cost was over $100,000,000. In addition, almost 200,000 acres were removed from production under the program, and another 6,354,000 acres of potentially producing land was retained in the conserving base. From these figures it seems unlikely that there is further need for production of the crops which would be grown by new water from the East Side Division.

The Bureau argues that more specialized crops may be grown with the new water, but the reports from U.C. Davis indicate that these crops also face surplus problems from West Side production. It is impossible to escape the conclusion that increased irrigated acreage is not now required.

The conflict I have described between the policies of the Departments of Agriculture and Interior has been fully described elsewhere, most recently in the Nader report on the Bureau of Reclamation entitled "Damming the West".

Another argument is that the water which was originally to be used for irrigation of new lands on the East Side now will be used to supplement present supplies, because there is a serious overdraft of groundwater in the San Joaquin Valley. But this supposed overdraft is not as serious as the Bureau states. In the proposed East Side service area there has been a marked decline in the rate of groundwater depletion. This is caused in part by new surface supplies, and in part by a stabilization of the demand and supply of groundwater. This decrease in the rate of decline in groundwater can readily be seen in two studies by the Bureau of Reclamation entitled "Generalized Change in Water Levels Spring 1947 to Spring 1957" and "Generalized Change in Water Levels Spring 1960 to Spring 1970". A similar decrease in the rate of groundwater depletion can be seen in the service areas of the Auburn Folsom South Project, part of the East Side Division, where groundwater declined about 2 feet per year until 1963, but now is declining only .5 feet per year. (Auburn Folsom South Service Area: Weighted average Spring Depth to water, Bureau of Reclamation.) While there has been continued subsidence in some of the problem areas of the State, most of these are now to be served by the State Project water or local developments, obviating the need for the East Side Division.

I have shown that there is little need to construct a new major irrigation project in the Central Valley at this time, despite the present plans of the Bureau of Reclamation. Let me now turn to my final topic.

III. The Environmental Effects of New Irrigation Projects.

The major ongoing and presently scheduled irrigation projects in California are those which would supply water to the East Side Division. The first environmental problem caused by such projects is increased salinization of the soil in the closed basin of Tulare and Buena Vista Lakes in the south San Joaquin Valley. The Corps of Engineers recognized this problem in their Environmental Impact Statement on the Melones Project, which will supply water to the area via the East Side Canal. Unless agricultural wastewater is removed, the amount of land permanently removed from production in the valley will markedly increase.

The second problem is that to supply water to the East Side Division there must be construction of new storage facilities. Two such facilities, the New Melones Project on the Stanislaus River and the Auburn Project on the American River are now under construction. Their completion will mean the loss of another 55 miles of wild rivers, at a time when river recreation is becoming increasingly popular. The scenic and biotic values of the river canyons will of course also be lost.

The third, and perhaps most crucial problem is that of the San Joaquin-Sacramento Delta. Presently the State and Bureau of Reclamation remove much of their water directly from the Delta, but propose to construct a Peripheral Canal to bypass the Delta. If the East Side Division is constructed, another 1,500,000 acre feet of water would be removed from the Delta. In a recent speech, Kerry Mulligan, head of the State Water Resources Control Board, made it clear that the Board's recent decision regarding Delta Water quality cannot be met without some development of the North Coast Rivers unless the East Side Division is not constructed. So development of major new irrigation projects in the San Joaquin Valley must surely lead to development of the last major free flowing rivers in the State, those of the North Coast.

IV. Effect of New Irrigation Development on Farm Workers.

Finally, let me turn to the effect of new irrigation developments on farmers, farm workers, and others. I have already discussed the present trend of farm income and land prices. Due to these trends, along with an increasing degree of farm mechanization, most notable on large corporate farms, there has been a steady decrease in farm employment in California over the past years. Total employment was 401,000 in 1966 but only 384,000 in 1969, despite increased farm acreage. Almost all of this decline was in farmers and seasonal farm workers. As the numbers of farmers declines, so does the opportunity for a farm worker to be employed or become a farmer himself. One of the main reasons for the decline of the farm family is the non-enforcement of the 160 acre limitation, a topic which is ably discussed by Professor Paul Taylor. I wish only to note that a recent favorable court decision may open the way for farms receiving Federal water to be family owned and operated.

Let me close with two suggestions for committee action. First, until farm prices and income stabilize and begin to increase, any new irrigation projects in California should be rejected. Second, if the Federal Government wishes to aid the farmer and farm worker, then it should reverse the present policies of non-enforcement of the 160 acre limitation, of continuing to increase irrigation projects while subsidizing crops produced by these projects, and of wrongly favoring the environmentally unsound large farm over the more managable small farm.

Table 1

FERTILIZER USED BY UNITED STATES AGRICULTURE

		size of farm gross sales in 100,000 of $				
	all farms	1-2	2-5	5-10	10+	(1+)
lb/acre fertilized	306	370	448	561	689	(460)

Source: 1964 Census of Agriculture

Table 2

PROPOSED USE OF LAND IN EAST SIDE DIVISION SERVICE AREA

Crop	acres in 1958	acres in ultimate development	increase
Oranges	14,764	77,662	63,000
Olives	2,645	9,282	6,600
Deciduous Fruit	44,368	73,717	29,400
Grapes	133,801	163,330	30,000
Potatoes	6,896	9,850	3,000
Misc. Vegetables	6,773	16,582	10,000
Field Corn, Milo	48,972	88,392	40,000
Irrigated Grain	100,993	87,219	-13,000
Alfalfa	116,076	186,456	70,000
Irrigated Pasture	58,480	109,526	51,000
Cotton	185,066	227,725	42,000
Misc. Field Crops	23,568	28,400	5,000
Idle	39,075	18,755	-21,000
Non-bearing Fruit	17,331	-	-17,000
Integrated Crops	7,875	-	- 8,000
Double Crops	- 3,931	-49,559	-(46,000)
	811,232	1,049,312	238,000

Table 3

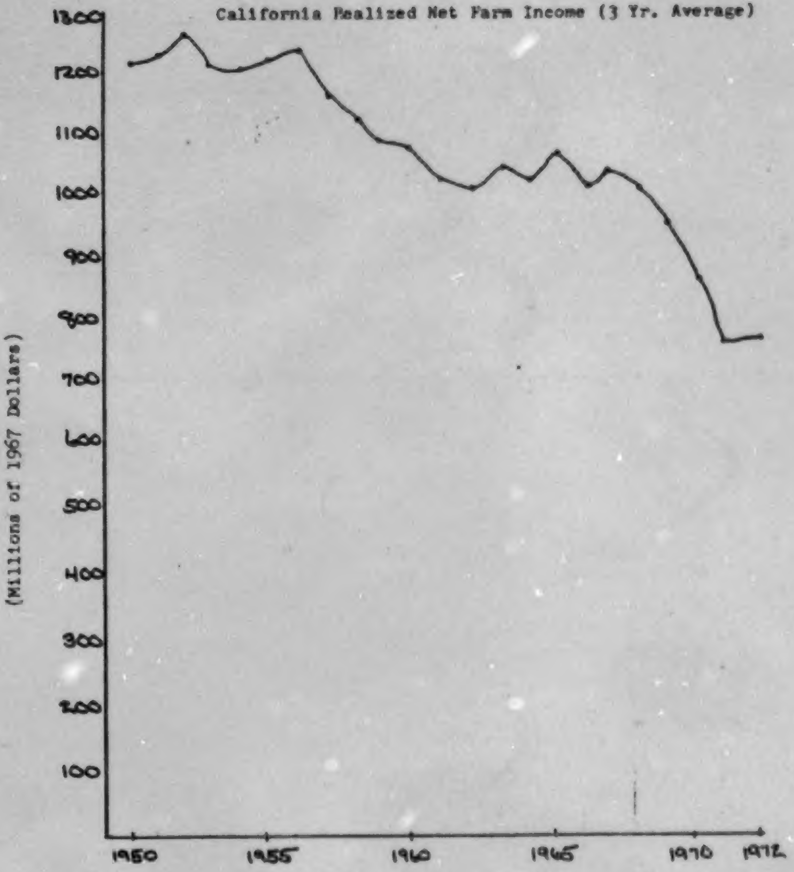
CROP SUBSIDY PROGRAM IN CALIFORNIA

Crop	Subsidy	Acres Set Aside
Cotton	$ 89,752,779	104,173
Wheat	$ 6,067,679	80,585
Feed Grains	$ 10,366,087	40,075

Potentially productive conserving base: Acres removed from production 6,354,000.

Source: California Agricultural Stabilization and Conservation Service

Figure 1

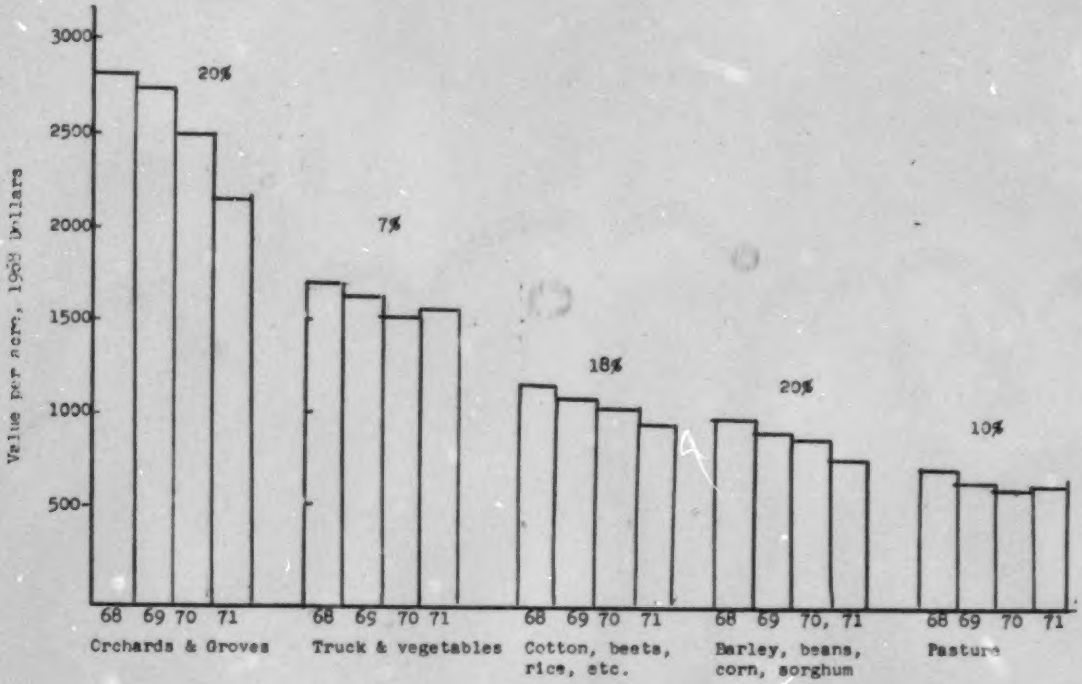


California Realized Net Farm Income (3 Yr. Average)

Source: California State Chamber of Commerce. Economic Survey Series. (Estimates for 1971 and 1972: Bank of America.)

Dollars adjusted by use of Consumer Price Index

Figure 2. Value of Irrigated Land in California: 1968 to 1971

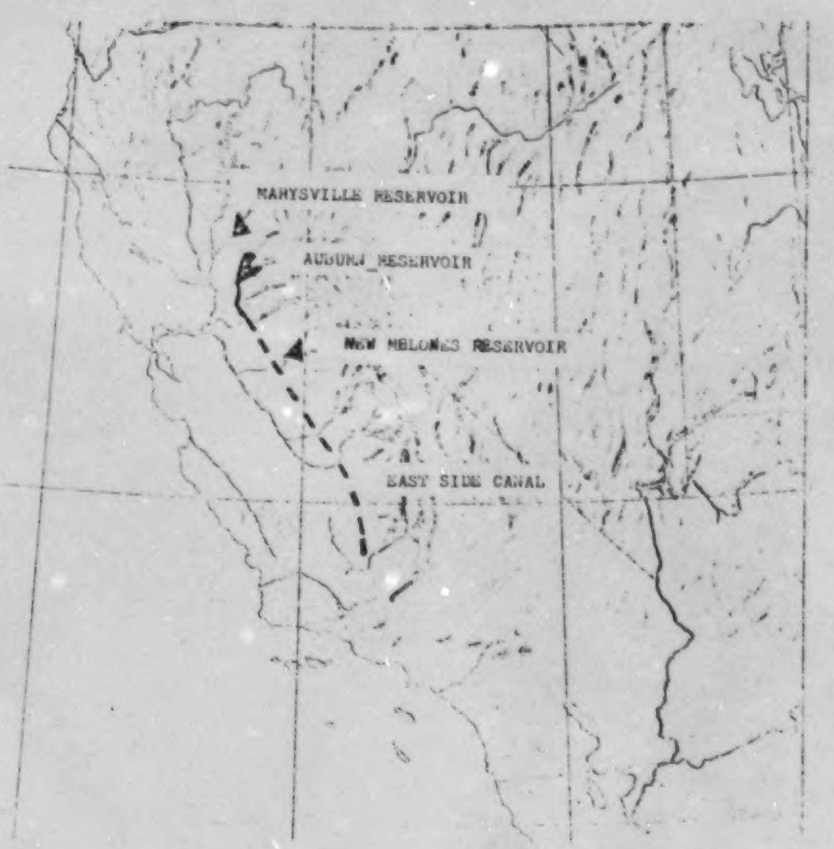


Source: Farm Real Estate Market Development, August 1971, USDA. (Dollars adjusted by use of Wholesale Price Index.)

Percentages are percent decline in price per acre, 1968 to 1971

FIGURE 3

EAST SIDE DIVISION, INITIAL PHASE: STORAGE AND DELIVERY FACILITIES


MARYSVILLE RESERVOIR
AUBURN RESERVOIR
NEW MELONES RESERVOIR
EAST SIDE CANAL

Senator Stevenson. Is Mr. Jerry Fielder here?

Mr. Fielder is the Secretary of Agriculture of the State of California.

I thank you, Mr. Fielder, for joining us this afternoon. I apologize for any confusion about the precise time of your appearance. If you have a statement, we would be glad to hear it, or you may enter it in the record if you prefer just to summarize.

STATEMENT OF JERRY W. FIELDER, SECRETARY OF AGRICULTURE, STATE OF CALIFORNIA

Mr. Fielder. Thank you, Mr. Chairman.

I do have a prepared statement. Much of it would be redundant after all you have heard thus far today. I will skim through and highlight some areas that I think are of significance and try to add a little to the record.

Senator Stevenson. Your prepared statement will be inserted at the end of your testimony.

Mr. Fielder. It has been pointed out, of course, that California agriculture is its No. 1 industry, and certainly, as such, represents a very important impact on California's economy.

In the area of world trade—nothing has been said about that today—the United States represents about 20 percent of foreign agricultural trade throughout the world and of that, California's participation is about 10 percent of the approximately $48 billion of products, that California will have produced in 1971. Over half a billion dollars of those products are exported out of the State, principally to foreign countries in offshore markets.

There has been some alluding to the fact that net profit has declined in California agriculture. This would represent a reduction from about $966 million in 1970, as compared to $1,045,700,000 in 1969. It is anticipated that the net income of California agriculture will remain about level with 1970 for the current year.

California is unique in that it produces more commercial crops than any other State, representing over 200 commercial crops. Cattle and calves are the State's leading farm products. These are followed by dairy products, grapes, hay, and eggs. Of the 20 leading farm commodities, we have such crops as tomatoes, lettuce, oranges, peaches, almonds, and strawberries. Most people associate these as particular types of California crops.

Farm labor is the most critical and costly input into California agricultural production. California farm employers and closely related agricultural services report the amount of over $1 billion in wages a year. This has been increasing and is expected to be significantly higher in the records of 1970.

Wages paid to California farmworkers have continued to increase and are among the highest in the Nation. The annual average composite hourly rate in 1970 was $1.87. This was 9 cents, or 5.1 percent, higher than the $1.78 per hour average for 1969. The 1970 California rate was also 45 cents, or 32 percent, above the national average of $1.42.

The seasonal or temporary farm labor force is made up of both local and nonlocal, or migratory, employees, who live in and out of the State. We have had a trend which might be of interest to you. For the migratory laborers who live in California, there has been a decline, but for migratory workers coming from other parts of the United States into California, there has been an increase. This might have some significant impact in your deliberations as you are looking at the picture across the country.

There has been some talk about the corporate structure and I think that has been pretty well worked over today. It has been brought out particularly that the corporate structures in California also include—and I think it is an important point—many farm family operations, which have grown from small to sizable operations or have remained small and are incorporated.

There has been considerable comment as to the efficiency of the small operator, and I would like to comment on that. This has been alluded to and I certainly concur with it, why are the smaller operators in California, the good-managed operations, able to complete with the larger sized structures? I think it is probably due to the unique character of the commodities grown in California, especially the type of commodities that California grows, and that person who is the entrepreneur and so closely associated with the operation can give it a more intense, sophisticated attention than maybe the larger corporate structure.

There has been a considerable amount of fear and concern as to the competitive position of the larger conglomerates, so-called conglomerates, and the smaller farmers, and I think there is every reason to be concerned in this area, but I submit that the competitiveness is not so much from the size but from some of the tax advantages that have been alluded to. We have taken a serious interest in this particular aspect and we do look with some concern on the ability of some organizations, some structures, to take advantage of tax benefits that others are not able to take the benefit of, and thus exercise a more competitive position as a result of that.

However, I would like to point out that it is quite possible that even the conglomerates are not going to continue to take over California agriculture. As an example, two very sizable ones, one that has been mentioned quite frequently today, have sort of stuck their toe in the water and tested the temperature and have backed off of

California's agricultural production, one being the S. S. Pierce Co., and the other one being Tenneco.

Mechanization, of course, has been a very important feature in the development of the farm labor picture in California. I point to the fact that it probably has increased the number of stable year-round workers or has been one of the major contributors to this, because, as agricultural production has become more sophisticated and use of mechanization has become a very important feature in California agricultural production, this has required a more highly skilled worker and development of skills which, in turn, a worker is able to cash in upon as he develops these skills in demanding a higher return for his efforts.

In my report I allude to the fact that one of the most dramatic examples of this kind of development was in the case of a tomato harvester which now picks all of the California canning crop of tomatoes. Another crop which has become highly mechanized, almost completely mechanized, is the production of sugar beets. However, the development of the tomato harvester hasn't displaced the total workers as it has been pointed out as doing, because mechanization has absorbed about half the number involved in the harvest now in the form of domestics, mechanics, machine operators, part-time workers who work on the tomato harvesters, and it hasn't affected the large number of work force as anticipated.

The returns to California agriculture, for both small and large farmers, of course, have been alluded to as being affected by the cost-price ratio. One of the areas of considerable concern to us is the higher percentage of support through property taxation that agriculture is contributing to the economy, for the cost of operating the government. The Williamson Land Act attempted to alleviate this and somehow today, in reference to it, it was alluded to as providing a mechanism whereby agriculture is not carrying its fair share of the cost of Government.

I would like to speak to that for a moment and say that, true, the Williamson Land Act has given some relief and some very much needed relief to California agriculture, both large and small, but I would like to also point to the fact that in spite of that, I think, California agriculture is still carrying far more of its share of the cost of Government support than I think it should.

I refer to a study which was developed in Ventura County, and I wish I had this.

If I might submit it and send it to you later as part of the record, I would like to do so.

Senator STEVENSON. You may do that.

(The information subsequently supplied follows:)

THE ECONOMICS OF CONSERVING AGRICULTURE IN VENTURA COUNTY

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ACKNOWLEDGEMENTS

This study was undertaken so that you might have a better understanding of some of the economic implications of conserving agricultural land in Ventura County. This report, dealing with the economic impact of agriculture, represents one part of an Interim Open Space Policy. The purpose behind this aspect of the Interim Policy is to ascertain whether agriculture can be as profitable as commerce or industry when all the economic benefits are presented as well as the cost and benefit accruing to local government. The study is general in nature and should be read and used with such an understanding.

The Ventura County Planning Department is indebted to William W. Wood, of the University of California, Agricultural Extension Service, for his aid and advice in this undertaking. Dr. Wood contributed of his time generously in creating and developing the framework of this study. Thanks should also be expressed to the Ventura County Farm Bureau, Agricultural Commissioners' Office, and Agricultural Extension Service, as well as Moorpark College. While recognizing that many individuals and agencies contributed to this study, the staff of the Planning Department bears full responsibility for its content.

This study was conducted by Ronald Poitras, Project Manager, and written by John Sewell, under the supervision of Victor R. Husbands.

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SUMMARY

This report attempts to demonstrate the importance of agriculture in Ventura County. Presently, agriculture is the leading industry in Ventura County and also contributes greatly to the economic solvency of governmental services. This study then illustrates the economic strength of agriculture.

The Planning Department conducted a cost-benefit analysis study seeking to derive the impact of alternative growth patterns in our agricultural land through 1980.

The Economics of Agriculture portion of this study has been divided into four sections. The first section recognizes the economic importance of agriculture on the local economy and the costs and revenues derived from an acre of agricultural land in Ventura County. Section two, three and four measure the economic impact of residential, commercial, industrial and governmental growth on the local economy and the cost and revenue from an acre of developed land. These sections differ in that each model represents a different degree of growth and density in the 100,000 acre area.*

Section two illustrates projected land use growth to the year 1980 based on present trends. Section three represents a different degree of density of growth to 1980 and Section four shows the area as being completely developed.

The following four tables indicate the economic impact of various land uses plus the cost and revenue of each land use. In each instance, agriculture has less economic impact than do other land uses. But in terms of costs and revenues derived from an acre of land, agriculture is more of an asset to local governments than the other land uses.

EXISTING AGRICULTURAL LANDS

ECONOMIC IMPACT

Agriculture	
Total Value	$170,693,200
With the Multiplier**	536,260,252

GOVERNMENT COSTS AND REVENUES PER ACRE

Type of Land Use	Total Costs	Total Revenues	Net Government Revenues
Agriculture	$4.74	$125.00	$120.26

SOURCE: VENTURA COUNTY PLANNING DEPARTMENT, 1970

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* This 100,000 acre figure roughly corresponds to cultivated acreage in Ventura County.

** See pages 8 and 9 for description of multiplier.

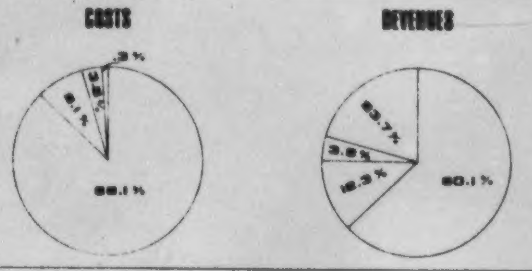
MODEL I   PRESENT TRENDS THROUGH 1980

ECONOMIC IMPACT

Residential	
Total Personal Income	$ 758,402,117
With the Multiplier	2,328,294,500
Industrial	
Total Sales	660,450,560
With the Multiplier	1,543,400,309
Commercial	
Total Sales	729,005,000
With the Multiplier	1,277,208,432
Agriculture	
Total Sales	114,879,600
With the Multiplier	355,858,677
Government	
Total Expenditures	110,154,111
With the Multiplier	432,905,656

GOVERNMENT COSTS AND REVENUES

Type of Land Use	Total Costs	Total Revenues	Net Government Revenues
Residential	$ 96,959,764 (88.1%)	$39,770,647 (60.1%)	-57,179,116
Industrial	8,916,600 (8.1%)	8,069,969 (12.3%)	-846,630
Commercial	3,908,250 (3.5%)	2,572,465 (3.9%)	-1,335,784
Agriculture	379,497 (.3%)	15,701,154 (23.7%)	+15,321,657
TOTAL	**$110,154,111**	**$66,114,235**	**-44,039,873**



SOURCE   VENTURA COUNTY PLANNING DEPARTMENT 1970

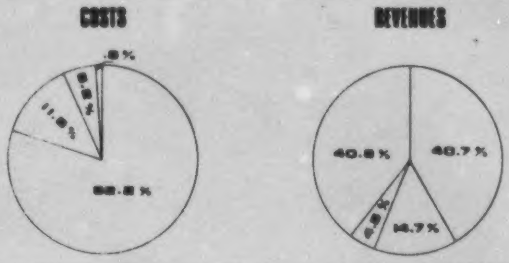
MODEL II AN ALTERNATIVE GROWTH PATTERN

ECONOMIC IMPACT

Residential	
Total personal income	$ 388,429,800
With the multiplier	1,192,479,486
Industrial	
Total sales	495,337,920
With the multiplier	1,157,218,356
Commercial	
Total sales	385,443,292
With the multiplier	958,379,365
Agricultural	
Total sales	153,443,292
With the multiplier	475,367,318
Government	
Total expenditures	62,722,055
With the multiplier	246,497,676

GOVERNMENT COSTS AND REVENUES

Type of Land Use	Total Costs	Total Revenues	Net Government Revenues
Residential	$46,551,120 (82.2%)	$17,619,420 (40.8%)	-28,931,699
Industrial	6,687,450 (11.8%)	6,052,477 (14.7%)	-634,972
Commercial	2,932,635 (5.2%)	1,930,301 (4.5%)	-1,002,333
Agriculture	425,685 (.8%)	17,612,050 (40.7%)	+17,186,365
TOTAL	**$56,596,890**	**$43,214,248**	**-13,382,639**



SOURCE VENTURA COUNTY PLANNING DEPARTMENT, 1970

MODEL III TOTAL DEVELOPMENT

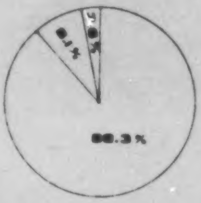
ECONOMIC IMPACT

Residential	
Total personal income	$ 4 890,710,000
With the multiplier	15,014,479,700
Industrial	
Total sales	3,302,252,800
With the multiplier	7,714,789,036
Commercial	
Total sales	2,594,091,200
With the multiplier	6,433,346,176
Government	
Total expenditures	550,674,600
With the multiplier	2,164,151,178

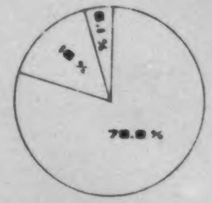
GOVERNMENT COSTS AND REVENUES

Type of Land Use	Total Costs	Total Revenues	Net Government Revenues
Residential	$486,405,600 (88.3%)	$199,532,822 (78.9%)	-286,872,778
Industrial	44,583,000 (8.1%)	40,349,848 (16.0%)	-4,233,152
Commercial	19,686,000 (3.6%)	12,957,274 (5.1%)	-6,728,396
TOTAL	**$550,604,600**	**$252,840,274**	**-297,834,326**

COSTS



REVENUES



SOURCE VENTURA COUNTY PLANNING DEPARTMENT 1970

AGRICULTURE IN VENTURA COUNTY

California has traditionally been an agricultural state, and for the last twenty-two years has had the largest value of agricultural production in the nation. In 1969, gross cash receipts from farm marketings in the state totalled $4 38 billion

Ventura County has contributed significantly to agricultural production in California and in 1969 was a leading nationwide producer of the following crops and livestock commodities.[1]

Commodity	State Ranking	Nationwide Ranking
Avocados, Fuerte	2	2
Broccoli	4	4
Cabbage	1	4
Carrots (other than desert)	4	4
Celery	4	4
Eggs, Chicken	7	7
Grapefruit (other than desert)	3	6
Lemons	1	1
Oranges, Navel	3 (In Southern California)	
Oranges, Valencias	1 (In Southern California)	
Peas, green	2	8
Peppers, bell	4	5
Peppers, chili	2	2
Spinach, fresh	1	2
Spinach, processing	3	3
Strawberries	3	3
Tomatoes, fresh market	6	7

The types of crops grown in Ventura County in 1969 reflect a changing pattern of agricultural production. As the following chart notes, fruit and nut and field crops have declined in acreage while vegetable, cut flower, and nursery stock increased. And while production value of crops has risen in the last decade, total acreage has declined an average of 1,800 acres a year.

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[1] California Agriculture 1969 (Sacramento California Department of Agriculture, May 1970)

TOTAL VENTURA COUNTY AGRICULTURAL PRODUCTION 1959 AND 1969

	Harvested Acres	Changes in Harvested Acres	Percent	Production Value	Changes in Production Value
Fruits and Nuts					
1959	53,821			$ 56,595,032.28	
1969	51,444	-2,377	-4.5	86,653,800.00	$30,057,767.00
Vegetable Crops					
1959	35,894			24,191,246.76	
1969	38,979	+3,085	+8.0	44,171,000.00	19,979,753.00
Field Crops					
1959	32,326			5,566,751.65	
1969	18,817	-13,509	-58.2	5,189,800.00	-376,951.65
Cut Flowers					
1959	810			1,001,960.00	
1969	1,733	+923	+52.4	3,287,000.00	2,285,040.00
Nursery Stock					
1959	- -			1,065,968.00	
1969	956			2,732,900.00	1,666,932.00
Dairy Products					
1959				3,358,014.65	
1969				3,621,000.00	262,985.35
Livestock and Poultry					
1959				10,935,675.00	
1969				24,674,700.00	13,739,025.00
Apiary Products					
1959				105,700.00	
1969				363,000.00	257,300.00
TOTAL	**Bearing and Nonbearing Acres**				
1959	**137,550**			**$102,821,348.34**	
1969	**119,562**	**-17,988**		**$170,693,200.00**	**$67,871,851.66**

SOURCE: VENTURA COUNTY, DEPARTMENT OF AGRICULTURE, 1970

The picture, then, is one of increasing crop specialization and value in Ventura County even though acreage is declining. Of course, this yearly trend of less total acreage and increased county value cannot continue indefinitely; eventually total value will have to be reduced as progressively more and more agricultural lands are transformed to urban purposes.

Unfortunately, as the loss of farm land continues in Ventura County, it is foreseeable that irreplaceable farm lands will also be lost to urbanization throughout California and the nation. For example, Santa Clara County, California, has lost over 50 percent of its prime agricultural land to date[2] while Orange County, California, has gone from a 1958 figure of 120,000 acres of crop land to a projection of less than 50,000 acres by 1980.[3]

The point to be made is that as cultivated acreage continues to shrink, that remaining becomes increasingly valuable. This is particularly true, as is the case for Ventura County, where the crops produced are heavily weighted in favor of high value, hard-to-duplicate specialty crops.

Even with the realization that productive acreage will be ever more valuable, it is projected that Class I and II prime agricultural lands will diminish, following present land use, absorption trends, by more than 21,000 acres by 1985. Presently, the following prime acreage is estimated to lie within incorporated boundaries.[4]

Planning Area	Total Acreage	Incorporated Acreage
Camarillo - Las Posas	40,000	8,074
Conejo - Coastal	8,000	6,752
Fillmore - Piru	15,000	1,101
Moorpark	4,000	- -
Ojai	4,000	330
Oxnard - Port Hueneme	41,000	12,955
Santa Paula	10,000	1,468
Simi	13,000	10,005
Ventura	20,000	6,962
TOTAL	**155,000**	**47,647**

SOURCE VENTURA COUNTY PLANNING DEPARTMENT 1970

If present trends are not altered, the future for agriculture in Ventura County does not appear very promising. And the loss will not merely be economic; farm land also has aesthetic value and acts as a positive force in shaping and delineating urban form.

Two ideas being advanced by the Association of Bay Area Governments aimed at preserving prime agricultural land might provide direction for altering the trend toward future intrusion of urban development on Ventura County's prime agricultural land. The first proposal is to direct urban services toward the least valuable agricultural lands (value is defined as value of gross agricultural output less the cost of operating capital and labor). This measurement would include the potential of land, given soil and climate conditions, to grow high value crops.

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[2] Land Use Issues in Santa Clara County

[3] Open Space in Orange County: Analysis and Recommendations (Irvine: University of California Extension, March 1970)

[4] These figures should be considered as general since they were planimetered from the map in the Soil Survey. As a consequence, our total is somewhat higher than the actual acreage in Class I and II soils in the southern half of the county of 148,148 acres.

The second concept is to direct urban service, and consequently, urban development away from agricultural lands by measuring costs other than initial construction costs, which are almost invariably cheaper in agricultural areas. It is suggested that the annual source of income from agricultural acreage be capitalized on a social benefit basis which would provide a longer range perspective of costs and benefits than do initial development costs alone.[5]

THE ECONOMICS OF AGRICULTURE

This section is divided into four parts.

1. The present economic importance of agriculture on the local economy and the costs and revenues derived from an acre of agricultural land in Ventura County are examined.

2. The economic contribution which will be forthcoming from the growth of residential, commercial, and industrial lands by 1980 and what governmental revenues and costs they will generate are determined.

3. The third part is identical to the second except the growth ratios have been reduced to 75 percent of the expected trend, and population density has been increased.

4. The final part is an analysis of a total development projection using the present trend ratios of growth for residential, commercial and industrial purposes.

The purpose behind this aspect of the Interim Open Space Policy is to ascertain whether agriculture can be as profitable as commerce or industry when all the economic benefits are presented as well as the cost and the benefit accruing to local government.

IMPACT OF AGRICULTURE ON THE LOCAL ECONOMY

AGRICULTURE IN 1969

In 1969, Ventura County had a total value of agricultural production, processing, and packaging of $170,693,200.[6] However, to state this figure is not to imply that this is the sum of economic consequences of agriculture and its related industries. As an example, to produce, package, and transport $100 worth of celery or head lettuce (equalling one ton of each) requires the following listed inputs or costs.[7]

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[5] Bay Area Regional Planning Program. Agricultural Resources Study (Berkeley): Association of Bay Area Governments, August 1969.

[6] Ventura County Annual Report and Crop Statistics, 1969 (Santa Paula, California, Agricultural Commissioner).

[7] Agricultural Extension Service.

	Agricultural Labor	Material	Services	Rent	Transportation	Packaged Process	Machinery	Selling	TOTAL
Celery	$18.18	$16.12	$1.06	$2.92 (1/30 ac.)	$ .73	$47.85	$ .91	$8.21	$95.98
Head Lettuce	$ 4.78	$ 7.88	$1.43	$3.89 (1/30 ac.)	$ .73	$47.27	$1.04	$6.80	$73.82

The inputs from other sectors of the economy, in turn, require secondary inputs in order for these industries to make their sales to the agricultural sector's production (which in this instance is the primary economic activity). This process of each sector selling to and purchasing from one another to create the added dollar volume of final demand for agricultural produce continues to act as an economic catalyst until the value of the dollar cycle is completely spent. This economic process is termed the multiplier effect. The multipliers used in this study are estimates taken from multipliers developed by the Agricultural Extension Service in California in 1969.[8] The multiplier for crop agriculture is 3.37 and for livestock agriculture, 2.01.

Differences in the two figures are largely accounted for by the fact that crop agriculture is much more labor intensive than livestock agriculture and wages are a strong catalyst to economic activity.

Summing up the value of crop agriculture of $142,034,500 and livestock and related agriculture of $28,648,700, by their respective multipliers gives a total economic contribution of agriculture to Ventura County of $536,260,252.

GOVERNMENTAL REVENUES AND COSTS IN AN AGRICULTURAL AREA OF 6,200 ACRES EAST OF OXNARD

Average tax revenues derived from agricultural lands in the area east of Oxnard are approximately $125 an acre. (This does not include improvements on the land).[9] To determine the cost of governmental services, all the budgets of all the governmental entities (taken by tax code areas) were examined for 6,200 acres east of Oxnard.[10] Analysis was made of how much revenue each taxing jurisdiction would need to operate for one fiscal year after excluding subventions and carry over revenues, and these figures were divided by the population within each taxing area. All the individual per capita costs were then added together to give a total per capita cost of governmental services.[11] In the area under consideration, we derived a per capita cost of $408.93.[12] Taking this cost, we then divided this figure by the number of people in the area under analysis and arrived at a per acre cost of governmental services of $4.74 (6,200 acres divided by 72 people). Therefore, in the 6,200 acres used for analysis, a per acre cost of services of $4.74 and an average revenue per acre of $125.00 were derived. This is a net gain of $120.26 per acre for each acre under cultivation.

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[8] A Study of the Economy of Napa County, California, by Irving Hoch and Nicholas Tryphonopoulos (University of California, Division of Agricultural Sciences and the Giannini Foundation of Agricultural Economics, August 1969), Giannini Research Report No. 303.

[9] Ventura County Assessor's Office

[10] The 6,200 acres consist of two abutting properties. The first property was bounded by Del Norte Boulevard in the West, Etting Road to the South, approximately 3,000 feet above Pleasant Valley Road to the North, and to the East by Wood Road; the second property runs West of Wood Road and East along Fifth and 3,000 feet above Pleasant Valley Road to Sumis Road.

THE TOTAL ECONOMIC CONTRIBUTION OF THE 6,200 ACRES EAST OF OXNARD

Analysis of the crops and gross sales value of crops within the 6,200 acres reveals that approximately 38 percent of the land is in citrus and the remaining 62 percent is in vegetables. Of the acreage in citrus, about 2,200 acres are in lemons, 75 in oranges, and 74 in grapefruit. Based on average crop value per acre in 1969, the total acreage in citrus would have generated gross sales value of somewhere in the neighborhood of $5,838,000.

The remaining 3,850 acres is mainly comprised of vegetables. Some of the primary summer crops are tomatoes, celery, and green lima beans; some dominant winter crops are cabbage, cauliflower, celery, spinach, peppers, and lettuce. In general, the area is double cropped. If the assumption is made that in 1969 all the area was double cropped (realizing some of the acreage grew one crop while some acres grew three or more crops a year), a generalization can be determined as to gross sales per acre of vegetables in the area. An acre of land growing two crops in celery would have gross sales in 1969 of approximately $6,000. On the other hand, an acre of tomatoes and head lettuce would have gross sales of somewhere in the vicinity of $3,000 and an acre of head lettuce and bell peppers would have gross sales of approximately $1,800. For this reason, any generalization on the gross sales value of vegetables is somewhat arbitrary, however, a figure of $3,000 per acre does not seem unreasonable. Using this figure, gross sales of vegetables of $11,550,000 are derived; together with citrus, this is a total gross sales of $17,388,000. The total economic impact for the 6,200 acres would be approximately $58,597,000.

This detailed analysis of 6,200 acres reveals some of the costs involved in urbanizing prime agricultural lands. The costs are very significant in terms of the loss of yearly agricultural sales and the economic activity generated by growing, harvesting, transporting, and retailing farm produce. Add to this the loss of acreage that returns much more in revenue than it costs in terms of governmental services, and the decision to convert agricultural land to urban purposes takes on an economic light seldom considered since agriculture has traditionally been considered a residual land use.

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[11] The area under consideration was divided in the provision of grade school services by the Ocean View School District and the Pleasant Valley School District. For purposes of this study, we assumed all the people in the area were served by the Pleasant Valley School District and we determined per capita cost of grade school services on this basis.

[12] These costs are total in that they not only include basic governmental costs for fire, flood control, school, etc., but also costs that are paid for through service charges such as lighting, water, etc.

PRESENT TRENDS THROUGH 1980

ECONOMIC

Taking an area of 100,000 acres, which roughly corresponds to cultivated acreage in Ventura County, a forecast was made of residential, industrial, and commercial land takes through 1980. It is projected that 15,507 additional acres will become residential, 3,080 industrial, and 1,350 commercial. The consequences of pursuing present trends are as follows:

Residential

The population of Ventura County is projected to increase by 348,000 by 1980. In addition, it is hypothesized that throughout the county, the population density will rise to an average of 17.3 people per acre. Considering this increased density will affect the entire county, it is forecast that 268,271 of these new residents will live within the 100,000 acres of undeveloped land being used as a model, and the remaining 79,279 will reside in present urban areas. The per capita income of these 268,271 people has been held constant as have all other economic data such as industrial, agricultural, and commercial sales per acre, and government costs per acre. Per capita income is $2,827;[13] aggregated this will add $758,402,117 worth of personal income to the county. However, as noted earlier for agriculture, this is not the total economic consequence of such projected personal income since a large share of these dollars will be circulated to purchase goods and services and will stimulate additional economic activity. Using a multiplier of 3.07, a total economic impact of $2,328,294,500 is forecast from personal income.

Industrial[14]

Of the 3,080 acres of additional land going into industrial uses by 1980, the assumption has been made that it will all be in our model of undeveloped land. Taking 1969 manufacturing payrolls, capital improvements, and material costs, and the value added to manufactured products result in final industrial sales of $523,039,470. With industrial sales per acre of $214,432 (after subtracting 10 percent of the acreage assumed to be in the Food and Kindred Sector), the additional 3,080 acres will create new industrial sales of $660,450,460. To apply a multiplier to this figure requires a determination as to what percentage of firms are endogenous (local) and what percentage are exogenous (firms and headquarters outside the county). This was necessitated by the fact that multipliers for the two types of firms differ fairly significantly. Exogenous firms have a much lower multiplier because of their greater tendency than endogenous firms to purchase materials and ship finished products to other regions, with a resulting reduction in the amount of economic activity generated. It has been found that 2/3 of the county's firms are endogenous and 1/3 exogenous, and the assumption has been made that this ratio will hold constant through 1980. The multiplier applied is 2.56 for endogenous firms and 1.89 for exogenous firms. On the basis of these two multipliers we will have an economic contribution of $415,667,768 from exogenous firms and $1,127,732,541 from endogenous firms for a total increase of economic activity generated from new industrial lands of $1,543,400,309.

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[13] Per capita income figures are for 1968 and were taken from Security National Bank's, **California Report: A Study of Growth and Economic Stature**.

[14] Food and Kindred Products (SIC Codes 19-39) have been excluded to keep from double counting since they have been incorporated into the Agricultural Commissioner's **Annual Report 1969**.

Commercial

Commercial land is projected to increase by 1,350 acres by 1980, and, as with industrial land use trends, an assumption has been made that all growth will occur within the undeveloped areas. In 1969, taxable sales in Ventura County amounted to $479,746,000.[15] Another $141,297,000 was forthcoming in non-taxable retail sales for a total of $729,005,000.[16] Dividing total retail sales by present acreage in commercial development gives us an average sales per acre of $381,484. With an additional 1,350 acres of commercial land, new retail sales of $515,003,400 will be created by 1980. Adding a multiplier of 2.48 will lead to total economic activity stimulated by new commercial lands of $1,277,208,432.

Agriculture

Using our 100,000 acres of undeveloped land and assuming that it conforms to the present acreage under cultivation leads to the predictable conclusion that less farm land will remain by 1980. Following present trends, 19,937 acres will be released to industrial, commercial, and residential uses in the next ten years.[17] This figure has, as a consequence, been subtracted from cultivated acreage to give us a new figure of 80,063 acres in agricultural production by 1980. The 80,063 acres of remaining agricultural land will result in a crop of livestock value of production of $114,879,600.[18]

Assuming that the final sales volume of livestock and related agriculture will continue to be 20 percent of the total and applying the appropriate multipliers, the economic contribution of agriculture is projected to amount to $355,858,677 by 1980.

Government

Government expenditures in 1980 were projected by taking all costs by all governmental entities in an urban area (subtracting subventions and carry over revenues) and dividing this amount by the population within each jurisdiction. Adding up all these individual costs gave us a total per capita cost of $410.07.[19] Applying this cost to the projected population in the undeveloped area provided us with a total local governmental expenditure by 1980 of approximately $110,154,111.

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[15] *Trade Outlets and Taxable Retail Sales in California, Ninth Annual Report* (Sacramento: Research and Statistics Unit, State Board of Equalization, April 27, 1970).

[16] Ibid. An estimate is made of total state nontaxable retail sales in this report. Assuming the county's percentage of total state nontaxable retail sales is the same as its percentage of taxable sales, the figure of $141,297,000 of non-taxable retail sales is obtained.

[17] It must be kept in mind that this does not actually conform to total land takes since this study has only concerned itself with those lands projected to be developed for commercial, industrial, and residential purposes. It does not consider the 29 percent of developed land that will go to other urban purposes by 1980.

[18] The amount reduced from present total value of agricultural sales is based on average per acre sales in the model area (combining citrus and vegetables) of $2,800. This figure should be indicative of the agricultural value of acreage which will be developed in the next ten years since it was derived for the Oxnard Plains and this area will continue to be a leading region for urbanization.

[19] The per capita cost in this instance is slightly larger than that listed earlier in our analysis of governmental costs and benefits in an agricultural area. However, this second case is for an urban situation, and, since we are applying this per capita cost to what is projected to be a developed area, it is felt the figure of $410.07 is the best reflection of actual costs.

Since local government is highly localized and is labor intensive, it has a large multiplier effect. Therefore, after employing the multiplier of 3.93 for local government expenditures, a total economic activity is engendered of $432,905,656.

Summary

The residential, industrial, commercial, agricultural, and governmental sales or expenditures in the area under consideration are estimated to have the following total economic impact on the county by 1980.

Residential	$2,328,294,500
Industrial	1,543,400,309
Commercial	1,277,208,432
Agricultural	355,858,677
Governmental	432,905,656
TOTAL	$5,937,667,574

SOURCE VENTURA COUNTY, PLANNING DEPARTMENT, 1970

GOVERNMENTAL REVENUES AND COSTS

Revenues

Revenues for each sector of the economy previously discussed have been determined by taking total assessed land and improvements for each category, dividing it on an acreage basis, and applying the tax rate per $100 worth of assessed valuation.[20]

1. According to Planning Department projections, the population will increase to 17.3 people per acre by 1980. At an average family size of 3.2, this will mean 5.4 dwelling units per acre. Taking net family income in Ventura County of approximately $8,500 and assuming all families purchase or rent homes worth approximately 2-1/2 times their annual income, there would be an average assessed value in these new residential areas of $28,487 per acre. Applying the tax rate of $9 per $100 of assessed value, a revenue of $2,564.69 is gained per acre. Total receipts from new residential acreage is, then, estimated to amount to $39,770,647.83.

2. Industrial lands and improvements have an assessed value of $83,846,000. Dividing this figure into a total of 2,720 acres gives us $30,825 of assessed valuation. With a tax rate of $8.50 per $100 of assessed valuation, an average revenue of $2,620.12 per acre of industrial land was determined.

3. Commercial lands have an assessed value of $41,923,000. With 1,870 acres of commercial development, a tax rate of $8.50 per $100 of assessed valuation, and an average revenue of $1,905.53 is generated.

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[20] Tax rates and assessed values (except for residential areas) are for the fiscal year 1968-69

4. Agricultural land has a total assessment of land and improvements of $217,900,600. This figure, divided by the 100,000 acres of cultivated acreage gives us an average assessed value per acre of $2,179 and average revenues per acre of $196.11.

5. Taking per acre revenues derived by residential, industrial, commercial, and agricultural lands and multiplying such receipts by projected land takes by 1980 provide the following estimated revenue from new land uses and remaining agricultural production.

Residential	15,507 Acres	$39,770,647.83
Industrial	3,080 Acres	8,069,969.60
Commercial	1,350 Acres	2,572,465.50
Agricultural	80,063 Acres	15,701,154.93
TOTAL	100,000 Acres	$66,114,237.86

SOURCE VENTURA COUNTY, PLANNING DEPARTMENT, 1970

Costs

The method of determining urban per capita costs was explained earlier. To arrive at per acre costs for each type of development, the $410.07 per person was divided between school and other costs. Per capita school costs were then multiplied by the 17.3 people per acre (the projected density by 1980) and the number of acres going into residential uses to give us total school costs. The remaining $216.01 of per capita governmental costs was applied to all land uses on a per acre population density of 13.4 people since our original per capita cost was averaged over an area with mixed urban uses, not just residential. This necessitated, then, that we average the projected population over the entire acreage estimated to be added to commercial, industrial and residential uses by 1980. After doing this, other urban per capita costs were multiplied first by the density of population and then by the total acreage of projected land uses for a total governmental cost of approximately $109,774,614. The merit of this latter figure, however, is that it is now broken down by each land use as follows

1980 GOVERNMENTAL COSTS IN
THE NEWLY DEVELOPED AREAS

Residential	$ 96,949,764
Industrial	8,916,600
Commercial	3,908,250
TOTAL	$109,774,614

SOURCE VENTURA COUNTY,
PLANNING DEPARTMENT, 1970

If, furthermore, it is assumed that the remaining 80,063 acres is under cultivation, and we apply the agricultural per acre costs of governmental services of $4.74 there is a total expense for the remaining acreage of $379,497.

SUMMARY OF PRESENT TRENDS

As noted, the economic impact of industrial, commercial, and residential land on an acreage basis generates a larger amount of economic activity than does agricultural production. This difference is somewhat reduced when the multipliers are added since agriculture has a large multiplier effect on the economy. Nevertheless, comparison of per acre sales of industrial and commercial land or urban per capita income on an acreage basis with per acre sales of agricultural products (rather than total sales) creates the impression that the latter's contribution is rather insignificant.

AVERAGE TOTAL SALES PER ACRE BY LAND USE TYPE

Industrial Sales Per Acre	$214,432
Commercial Sales Per Acre	381,484
Urban Per Capita Income Per Acre (1980)	61,121
Agricultural Sales Per Acre (Including Packaging and Processing)	1,706

SOURCE: VENTURA COUNTY PLANNING DEPARTMENT, 1970

A different picture is revealed when local government costs to service each function as well as total property taxes generated are analyzed.

TOTAL GOVERNMENT COSTS AND REVENUES FROM PROJECTED 1980 DEVELOPMENT

Type of Land Use	Total Costs	Total Revenues	Net Government Revenues
Residential	$ 96,949,764[21]	$39,770,647.83	-57,179,116.17
Industrial	8,916,600	8,069,969.60	-846,630.40
Commercial	3,908,250	2,572,465.50	-1,335,784.50
Agriculture	379,497	15,701,154.93	+15,321,657.93
TOTAL	**$110,154,111**	**$66,114,237.86**	**-44,039,873.14**

SOURCE: VENTURA COUNTY PLANNING DEPARTMENT, 1970

From a property tax standpoint, it can be seen that agriculture is the only land use that pays for itself when industrial and commercial property is given a cost based on total urban expenditures by government. Of course, there are revenues derived from urban development other than property taxes; but on this basis, agriculture is, from the public perspective, the least expensive land use.

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[21] Industrial and commercial costs are greater than revenues because all expenditures related to people could not be separated from those related to land. Therefore, the costs above are urban costs which favor residential as opposed to commercial and industrial governmental expenditures. Total costs, of course, will remain the same irrespective of the breakdown.

AN ALTERNATIVE GROWTH PATTERN

Following actual projected growth trends and assuming they will take place within our model of 100,000 acres, we arrived at the previously outlined economic consequences on Ventura County and the costs and benefits to local government. With the alternative growth pattern, we simply start with the premise that (1) population will increase by three-fourths the expected rate (commercial and industrial expansion are also assumed to be 75 percent of projected growth trends), and (2) the population will reside at a density of 20 people per acre rather than 17.3. Using this alternative growth pattern, the following economic impact and local governmental costs and revenues are hypothesized.

ALTERNATIVE POPULATION AND ACREAGE PROJECTIONS

Projected population	261,000
Projected population in the newly developed area	137,400[22]
Residential acreage	6,870
Industrial acreage	2,310
Commercial acreage	1,013
Remaining agricultural acreage	89,807

ECONOMIC IMPACT

Residential	
Total Personal Income	$ 388,429,800
With the Multiplier	1,192,479,486
Industrial	
Total Sales	495,337,920
With the Multiplier	1,157,218,356
Commercial	
Total Sales	385,443,292
With the Multiplier	958,379,365
Agriculture	
Total Sales	153,443,292
With the Multiplier	475,367,318
Government	
Total Expenditures	62,722,056
With the Miltiplier	246,497,676

SOURCE: VENTURA COUNTY PLANNING DEPARTMENT, 1970

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[22] As in the previous example, it was assumed that the density would also increase in existing urban areas. Therefore it was necessary to subtract the number of people expected to go into already developed regions.

GOVERNMENT COSTS AND REVENUES (ad valorem Property Tax)

Type of Land Use	Total Costs	Total Revenues	Net Government Revenues
Residential	$46,551,120	$17,619,420.30	-28,931,699.70
Industrial	6,687,450	6,052,477.20	-634,972.80
Commercial	2,932,635	1,930,301.89	-1,002,333.11
Agriculture	425,685	17,612,050.77	+17,186,365.77
TOTAL	$56,596,890	$43,214,250.16	-13,382,639.84

SOURCE VENTURA COUNTY, PLANNING DEPARTMENT, 1970

TOTAL DEVELOPMENT

The third model uses present trend data for household income, per capita income, population density per acre, ratios of commercial, industrial, and residential development, etc. It differs only in that it assumed all 100,000 acres are developed; this assumption was made to enable us to assess the economic impact and costs and benefits to government if all 100,000 acres of agricultural land were converted to urban purposes. The following results were obtained from following such a projection.

ALTERNATIVE POPULATION AND ACREAGE PROJECTIONS

Projected population in the newly developed area	1,730,000
Residential acreage	77,800
Industrial acreage	15,400
Commercial acreage	6,800

ECONOMIC IMPACT

Residential	
Total Personal Income	$ 4,890,710,000
With the Multiplier	15,014,479,700
Industrial	
Total Sales	3,302,252,800
With the Multiplier	7,714,789,036
Commercial	
Total Sales	2,594,091,200
With the Multiplier	6,433,346,176
Government	
Total Expenditures	550,674,600
With the Multiplier	2,164,151,178

SOURCE VENTURA COUNTY, PLANNING DEPARTMENT, 1970

GOVERNMENT COSTS AND REVENUES (ad valorem Property Tax)

Type of Land Use	Total Costs	Total Revenues	Net Government Revenues
Residential	$486,405,600	$199,532,822	-286,872,778
Industrial	44,583,000	40,349,848	-4,233,152
Commercial	19,686,000	12,950,274	-6,728,396
TOTAL	**$550,674,600**	**$252,840,274**	**-297,834,326**

SOURCE: VENTURA COUNTY, PLANNING DEPARTMENT, 1970

CONCLUSION

The datum presented is a first approximation and is not meant to imply that the figures are exact. Rather, it is indicative of the consequences of various growth trends. From the standpoint of this analysis, agriculture is the only land use that pays its own way in relation to the costs and benefits accruing to local government. This is a well known fact; the purpose of this study was to quantify it. The per acre economic impact of agricultural, industrial, commercial, and residential land uses, are also quantified and it is clear that, economically, agriculture cannot compete with urban uses.

The analysis makes it explicit if Ventura County simply wants the largest amount of economic activity possible, it should be prepared to develop all its agricultural land as rapidly as feasible. However, if the concern is with governmental solvency and environmental quality, it will be necessary to consider agriculture as more than a residual land use. If this concept is accepted, it may not be too late to preserve some of Ventura County's unique agricultural heritage.

VENTURA COUNTY PLANNING DEPARTMENT
December 8, 1970

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Mr. Fielder. In that report a study was conducted of the four segments of the economy in Ventura County, principally the residential, the commercial, the industrial and the agricultural, as to what each of these were contributing in the cost of support of the Government and what each was benefitting from Government. It was quite revealing that all three, except agricultural, were receiving far more benefits. In the case of residential, something like $20 million in excess of what they were paying into the cost of Government; whereas agriculture was paying in excess of $20 million over what it was benefiting from Government services.

So I make that point from the standpoint that, in spite of the relief that the Williamson Land Act has provided for agriculture, they are still paying more than their fair share in support of the property taxation.

I would like to read a bit here, if I might, on page 4, where it states:

> It should be noted that the total number of people working in California agriculture has been declining for a number of years, at the rate of about 1.5 percent per year. In the 10-year period between 1960 and 1970, the estimated average total number working on California farms fell from 337,700 to 289,300, a drop of 44,400, or 14.3 percent. Most of the reduction was due to the decreasing number of farmers and unpaid family help and the termination of the bracero program.
>
> The trend to fewer but larger farms has probably had its greatest impact on the number of farmers and unpaid family help. In 1960, the average number of people in this classification was estimated at 99,000 and represented 30 percent of the total work force. By 1970, the number had dropped to 78,900 and represented 27 percent of the work force.
>
> * * * * * * *
>
> The loss of the bracero program and the reduction in the number of farmers and unpaid family help represents a total reduction of over 60,000 farm workers since 1960. This is considerably more than the reduction in the average total number working on California farms.

Yet, if you examine our migratory pool, it has not increased, so I think it is an important point that we have, though, increased our numbers of year-round employment and provided a good quality return to that employment.

There is considerable here in the record that I could comment on now, but the day is getting short and there are a few things that I would like to add for the record if I might.

There was some concern expressed as to the availability of agricultural credit. We in the Department of Agriculture are most concerned about this. Two years ago we put together representatives of all of the credit agencies, including Government as well as the private sectors, institutional representatives, and supply creditors. We brought them together with representatives of the University of California Foundation to conduct a study as to whether or not agricultural credit was going to force out the production of agriculture.

It was interesting to us to learn, and most reassuring, that, as we studied the matter, actually the inputs into agricultural credit needs and supply had increased continually over the past year, and that there was a strong commitment from all of those represented that they were not going to forsake agricultural credit needs and were going to continue to support it.

I think that was brought out somewhat by Mr. Long's testimony in regard to the Bank of America this morning, but it was also the response from all of the major credit sources that we worked with at that time.

One of the things that has been a major detriment to California agriculture has been the interruption of transportation, the movement of our commodities. Fortunately, the railroad strike didn't last too long. The dock strike has hurt California agriculture, and your particular interest is in the area of the so-called small farmer. I can tell you that he has been considerably and seriously hurt by the interruption of movement of his products.

If I might take the liberty of suggesting, certainly legislation, mechanisms, need to be established that somehow in the future will prevent the interruption of the important segments of our economy that have such a tremendous impact upon not only the industries but the public.

Another point I would like to speak to and incorporate into the record is the concern that has been expressed here, I think it was stated this morning, that it was absolutely impossible for young people to find ingress into agriculture. I really find that one very difficult to accept because I can look in my own community and within just a very recent few years point to some young people who have started, and the assists in credit support for these kinds of people who have the ability and who have the determination to get started are available, and young people are getting started, so the door isn't completely shut without a question. Admittedly, it is far more difficult now than it was in the past, say, 20 years ago or even 10 years ago, and it is far more difficult to remain in business, but, nevertheless, the opportunities are there and the abilities are being demonstrated.

I think I have hit the highlights, Senator, and I do have a written statement.

Senator STEVENSON. Thank you, Mr. Fielder.

You indicated that you felt the family farm unit was relatively efficient. You indicated also that it might be relatively more efficient in the production of labor intensive or unique commodities, rather than others. I find it is true everywhere. I come from Illinois where we grow feed grains primarily, and everything I know about agriculture in the Middle West indicates that the family farmer is, relatively speaking, a very efficient producer; given a chance he can produce just as low or at a lower cost than the larger corporate farmer, although we don't have quite the competitive situation there that I think you have here.

We have heard enough testimony to indicate it is not a question so much of efficiency; it is certainly a question of whether policies and activities of Government really don't work against the little fellow to make it difficult for him to survive.

You mentioned the tax laws as one of the advantages that the big conglomerate has. Other things have been mentioned: Loopholes in the immigration laws, and lax enforcement of our border laws. Is that going to continue to be a problem in California after the new law becomes effective which makes it a crime to hire an illegal entrant?

Mr. Fielder. How effective enforcement of that will be is, of course, speculative. There is no question but what illegal aliens do find work in California, not only in agriculture, though, but in other endeavors as well. But I don't think it is as widespread, and I am expressing an honest opinion here, as is often contended that it is. More and more you see the utilization of the domestic year-round, more highly skilled worker; that is the trend, and I think it is going to continue to develop.

Senator Stevenson. We have also heard testimony to the effect that the Department of Labor Farm Labor Service program really doesn't benefit anybody except the bureaucrats or, least of all, the small farmer. Does your Department have anything to do with the administration of that program in this State or do you have a State employment service that administers it?

Mr. Fielder. We have a Farm Employment Service in California that is separate and aside from our Department. We don't have that responsibility.

Senator Stevenson. Do you have any opinions about its value to the small farmer?

Mr. Fielder. Yes; I have a very definite opinion. I think it is based upon my own personal experience. I was a small operator and we utilized the service and had very good benefits from it. We have to judge from the reports that come through our Department from their Department that they are placing people in California. I think that they are performing a service.

Senator Stevenson. I have heard that it was primarily used in California to place welfare recipients in farm work, except that it frequently didn't work, welfare recipients didn't turn out. Is that the case; is it being used partly for that purpose?

Mr. Fielder. Of course every effort in California is being made to put to work welfare recipients who are able bodied citizens and, if they are agricultural workers, then they are referred through that service.

Senator Stevenson. What if they aren't agricultural workers?

Mr. Fielder. I can't speak to those who aren't agricultural workers; I am not familiar with it.

Senator Stevenson. The activities of land-grant colleges have been mentioned by all of our witnesses so far this morning. It was estimated by one witness that 95 percent of the agricultural work of the University of California went into technology and very little, if any, to the social problems of people in rural America. How do you feel about that? Is that a fair estimate, or breakdown?

Mr. Fielder. There are those in agriculture who might say they think there is greater effort on the social than there is in the research endeavor on their behalf. No, I am rather familiar with the University of California, particularly the Davis branch, and more particularly the College of Agriculture, which is now the College of Agricultural Environmental Sciences. I think they are trying to develop a balance of service to the exploratory and research needs of agriculture. At the same time they are trying to address themselves to the relationship of agriculture to society and California rural America.

Senator Stevenson. The Land Reclamation Act has been discussed at length today. We have heard testimony about the failure to enforce the 160-acre limitation. How do you feel about that policy; should it be enforced and, if not, why not?

Mr. **Fielder**. First of all, I happen to be one who—let me answer your question as to the enforcement of the law.

Being head of a department that is regulatory in nature, naturally I believe laws should be enforced. This is a law that hasn't been followed in practice necessarily for quite some time, and a system of economy has developed around what might be construed as a lack of enforcement.

I started to say I happen to be one who feels the 160-acre limitation isn't a practical figure any more. Something that hasn't been said here today is that the 160-acre limitation, if reinstituted and adhered to strictly, would not suffice to take care of what is the average size operation, which has become the minimum economic entity for a successful operation.

Senator **Stevenson**. If I can interrupt right there, is that so, or aren't we overgeneralizing a little? Don't you have an economically self-sufficient unit of 160 acres if it is in pistachio nuts or almonds or walnuts?

Mr. **Fielder**. That point was made today, yes, and in some commodities even 40 acres is an economic unit but the average is 654 acres.

Senator **Stevenson**. Then would you bring the limit up to the average, or up to the highest figure, or would you have some kind of a floating limit, depending on the nature of the crop? What would you do?

Mr. **Fielder**. It makes more sense to bring it up to some figure that more closely approaches what would be an economic operating unit.

Senator **Stevenson**. Do you think 640 acres would be a reasonable limitation in California?

Mr. **Fielder**. I merely used that figure because that is the average farm size in California, which obviously is a result of economics.

I think the point I was trying to make here was that, if you enforce the 160-acre limitation, you wouldn't necessarily put people back on the farm. What would happen, you might force some changes of ownership but you still have to seek that level of efficient operation, and it could be somewhat larger than that, depending upon the commodity. If it were feed grains, it could be several thousand acres. So the 160-acre limitation isn't the thing that is going to put people back on the farm. That is the point I am making.

Senator **Stevenson**. It seems to me it would be very complicated, because we are also saying the efficient level of operation depends upon tax laws, it depends upon land-grant colleges, crop subsidies, immigration laws, farm labor services, and so on. If there was reform up and down the line, and we were trying in all cases to eliminate the biases in our policies, I should think one that might be included would be the Land Reclamation Act, or the nonenforcement of the water limitation. If you are eliminating some of these other biases, maybe 640 acres would be too high, wouldn't it?

Mr. **Fielder**. It is possible. Again, if you are talking about an operation, that is dependent upon the commodity you are growing and the cost of operation. The 160-acre limitation isn't that closely, directly related to it is my point.

Senator **Stevenson**. One other subject that has not come up so far this morning that I have heard concern expressed about in the past is the ability of the family farmer to market his products. There have been suggestions that large growers are forming associations, cooperative devices for marketing their products and, except in times of short supply, it can be very difficult for the little fellow simply to sell the fruits of his labor. Is that a problem in California for the family farmer?

Mr. **Fielder**. Certainly. Marketing is really the name of the game in all areas of operations of production of agriculture. The opportunities for a larger corporation to build a market structure, admittedly, are greater. If they are a corporate structure, they have more autonomous control. They answer to a smaller board of directors. On the other hand, through the cooperative effort, and marketing order programs that we have in California, the small operator does have avenues to address himself to his marketing problems. And I think there are some very fine examples of cooperative marketing efforts that have served this particuiar need with the small growers.

Senator **Stevenson**. As you know, we have also heard a good deal about land ownership patterns in rural California. Is there any agency of the State government that inventories the land and that has the figures on ownership of land by corporations, and which corporation? How do you find out in California who owns the land, or can you?

Mr. **Fielder**. Of course the only ones who really know who owns the land are the assessors of each county. There is no government structure that has a record of what corporations own land and what are partnerships, private ownerships, and so forth. We don't have access to that type of information.

Senator **Stevenson**. Thank you for your testimony. Mr. Fielder.

I also want to say I have heard a great deal today, about how California is the No. 1 agricultural State in the Union, and it is making me increasingly uncomfortable. We have always looked upon Illinois as the No. 1 agricultural State. We may not be the No. 1 agricultural producer, about the best I can do at the moment is to say we are the No. 1 agricultural exporter.

Mr. **Fielder**. I knew that.

Senator **Stevenson**. We don't produce any walnuts or pistachio nuts, but we produce a lot of corn.

We in Illinois are worried about the problems in the transportation industry. Another subcommittee of the Labor and Public Welfare Committee of the Senate does have before it now a number of proposals to deal with this very serious problem, not only for farmers but everybody in the country. I certainly hope we can come up with some new mechanisms for resolving disputes in this very critical industry, and soon.

Mr. **Fielder**. I commend you.

Senator **Stevenson**. Thank you very much.

(The prepared statement of Mr. Fielder follows:)

TESTIMONY BEFORE THE
MIGRATORY LABOR SUBCOMMITTEE

By

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JANUARY 11, 1972

TESTIMONY FOR SUBCOMMITTEE ON MIGRATORY LABOR

Mr. Chairman, and members of the Committee, I am pleased at the opportunity to present testimony before your Committee regarding California's agricultural industry and trends taking place in the industry which are affecting both farmers and farm workers.

Because it is our number one resource based industry, agriculture is extremely important to California's economy. For the past 23 consecutive years, California has led the nation in gross cash receipts from farm marketings. In 1970, with only two percent of all the nation's farms, the State's gross farm income totalled 4.49 billion dollars. This represented 9.2 percent of the national gross income from farming. It is estimated that gross farm income in 1971 will total a record 4.8 billion dollars, up five percent from 1970.

While gross farm income has been increasing, realized net income has been falling because of rising production costs. In 1970, net income was 966.2 million dollars, down eight percent from the net income of 1,045.7 million in 1969. It is expected that net income will show little change in 1971. It should be kept in mind that farmers are compensated for their management and capital investment from net income.

No other state produces as wide a variety of food products. Approximately 200 commercial crops are grown in California. Even though California is the leading, or exclusive, U.S. producer of about 50 of these crops, no one commodity is dominant. The extent of diversification is illustrated by the fact that most crops individually account for less than two percent of the State's total farm income.

Cattle and calves are the State's leading farm products as far as farm value is concerned. In 1970, cattle and calves were followed by dairy products, grapes, hay, and chicken eggs. Each of these commodities had a farm value in excess of a quarter billion dollars. Included in the 20 leading farm commodities are crops such as tomatoes, lettuce, oranges, peaches, almonds, and strawberries, which most people associate with California agriculture. Also included among the top twenty, however, are crops such as rice, potatoes, cut flowers and barley. California cut flowers, for an example, ranked fourteenth and had a farm value of almost 87 million dollars in 1970.

Farm labor is the most critical and costly input in the production of California's farm commodities, many of which are labor-intensive specialty crops. California farm employers and closely related agricultural services reported slightly over one billion dollars in wages during 1969. The total is expected to be significantly higher for 1970.

Wages paid to California's farm workers have continued to increase and are among the highest in the nation. The annual average composite hourly rate in 1970 was $1.87. This was nine cents, or 5.1 percent higher than the $1.78 per hour average for 1969. The 1970 California rate was also 45 cents, or 32 percent above the national average of $1.42.

The farm labor force is made up of farmers and unpaid family help, and hired domestic employees, both year-round and seasonal. With the end of the Bracero Program, no foreign contract labor has been used in California since 1968. The seasonal or temporary farm labor force is made up of both local and non-local, or migratory employees, which may live in or out of the State.

Changes are taking place in California agriculture which are affecting the demand for farm labor and the kinds of farm workers being employed. Perhaps the most important change in this regard is the trend to fewer but larger farms. In 1960, there was a total of 108,000 farms in California, with an average size of 359 acres. By 1971, the number of farms had decreased to 56,000, while the average size of farms had increased to 654 acres. In 1970, the average California farm, including land and buildings, was valued at 338,000 dollars. Nationally, the average farm size in 1970 was 383 acres, with an average value of 71,000 dollars.

While some of the increase in farm size involves conglomerates and integrated corporations, the operation of agricultural enterprizes, regardless of ownership, is highly competitive and will continue to be so. In virtually all respects the form of ownership of the farming operation is far less important than is the availability of capital and expertise in production, marketing and management.

The increasing mechanization of production agriculture is also an important factor which is affecting the structure and demand for farm labor in California. Mechanization has been well-established for many years in the production and harvesting of field crops such as cotton, sugar beets, and rice. The mechanization of our specialty fruit and vegetable crops is more difficult, but much research work is being done to develop machines that can be used feasibly on a commercial basis. The mechanical harvesting of some tree crops such as almonds, walnuts, and prunes is already well established.

The most dramatic example of the development and rapid wide-spread use of mechanization took place in the California canning tomato industry. In 1963, the canning tomato crop was picked entirely by hand, principally by braceros from Mexico with a peak work force of over 42,000. Almost 100 percent of the crop is now harvested by machine with a peak work force of about half the number used previously.

Work is proceeding to develop mechanical harvesters for other crops, such as grapes, which utilize more labor during the peak harvest season than any other crop. The mechanical harvesting of wine and raisin grapes appears at hand, but will be more difficult for table grapes which require more careful handling. Machines to harvest other crops such as cling peaches, asparagus, olives, apricots and berries, are also being developed and tested. This work is being financed to a large extent by the industries concerned.

California, which has long recognized the importance of agriculture in its economy, has taken affirmative action to provide needed food and fiber to the growing population. Land taxation is one of the major fixed costs of farming. As population increased land values also increased and the property taxes went up. In order to preserve farm land for farming the Legislature passed the Williamson Land Conservation Act in 1965. That Act, which now embraces almost 10 million acres of land, allows tax assessment on farmland to be based on agricultural income rather than market value. The landowners is required to commit his land to agricultural production for a minimum of ten years, extended annually for one year, in order to enjoy the tax benefits. The State will reimburse the counties for some of the tax losses they sustain.

The trend to fewer but larger farms and increasing mechanization are probably the most important factors at the farm level which are affecting the demand for farm labor and the type of farm worker being employed. The changes and trends taking place in the type of farm worker employed are clearly discernible and very interesting.

First, it should be noted that the total number of people working in California agriculture has been declining for a number of years, at the rate of about 1.5 percent per year. In the 10-year period between

1960 and 1970, the estimated average total number working on California farms fell from 337,700 to 289,300, a drop of 44,400, or 14.3 percent. Most of the reduction was due to the decreasing number of farmers and unpaid family help and the termination of the Bracero Program.

The trend to fewer but larger farms has probably had its greatest impact on the number of farmers and unpaid family help. In 1960, the average number of people in this classification was estimated at 99,000 and represented 30 percent of the total work force. By 1970, the number had dropped to 78,900 and represented 27 percent of the work force.

From the mid-1950s until 1964, foreign contract workers, brought in principally under the Bracero Program, made up about 10 percent of the State's total farm work force. During 1960, an average of 42,700 were employed. Since 1968, when the program was terminated, no foreign contract workers have been used.

The loss of the Bracero Program and the reduction in the number of farmers and unpaid family help represents a total reduction of over 60,000 farm workers since 1960. This is considerably more than the reduction in the average total number working on California farms.

An increase, of course, has occurred in the number of year-round and seasonal local workers. While one might expect that a considerable increase would have occurred in the number of migrant workers, such was not the case. Farmers have substituted machinery for labor to achieve better control of production costs as well as to be able to continue operating with a reduced labor force.

The trend to fewer but larger farms and greater agricultural mechanization has resulted in more jobs for managers, foremen, soil and crop specialists, machine operators, and mechanics. In short, the demand for regular year-round workers is increasing. In 1960, the average number of year-round workers was estimated at 93,500 and represented 28 percent of the total work force. By 1970, the number had increased to 96,800 and represented 34 percent of the work force. We feel this trend is good for both the farmer, from the standpoint of a stable and reliable work force, and the worker, from the standpoint of year-round employment with a higher income and better living conditions. The hired year-round worker now makes up the largest single segment of the farm work force in California. Conversely, migrant workers constitute only about 9 percent of the farm work force.

California's farmers are facing problems associated with surpluses of many products, increasing costs of production, competition from foreign souces of supply, shrinking export markets, and the present concern about the ecology.

A. Surpluses in production cut drastically into the net returns of farmers. The California farmer has one of two alternatives: (1) to reduce the surplus by self imposed commodity adjustments or surplus removal programs, or (2) suffer the price reductions which come about by marketing more of the commodity than consumers are willing to buy at a profitable return to the producer, neither alternative is satisfactory.

B. As production costs increase, and lacking any meaningful tariff protection, California farmers are increasingly feeling the pinch from imported farm products from Mexico and from off-shore sources. Tomatoes from Mexico, grapes from Chile, and olives from the Mediterranean area are but a few examples of imports which have seriously impaired segments of California's farm economy.

C. High costs of production, processing and particularly unfavorable transportation rates, have cut into the export markets previously enjoyed by California producers. The dock strike was particularly damaging in 1971 for all commodities. Foreign subsidization of transportation and processing have reduced exports of cling peaches and fruit cocktail. Non-tariff barriers, quotas and equalization taxes imposed by foreign countries on imports have kept our products out of many countries which are potentially excellent markets.

D. California agriculture, operating in an atmosphere of environmental concern, is necessarily subjected to increased costs of production resulting from efforts to maintain an acceptable environment. Agricultural wastes that once were burned on the farm must now be collected, loaded, and transported to central dumps for disposal. Pesticides once used as integral parts of the farm production process have been discarded because of their suspected environmental hazard; sometimes without replacement products being available. The demand for meat, eggs, and dairy products has caused increased amounts and concentration of animal wastes resulting in odors and dusts which are offensive to an increasingly urbanized society, as well as offering a potential source of water contamination. The costs of controlling all kinds of environmental problems on the farm must be borne by the farmer and thereby decrease his net income. California agriculture, operating in competition with not only other states in our own country but with other countries, is at a distinct economic disadvantage when competing with areas less environmentally oriented in their concerns.

In summary, the makeup of California's farm labor force has changed considerably during the past 10 years. The demand for year-round workers will continue to increase and will constitute an even greater proportion of the farm labor in the future. Farmers and unpaid family help, on the other hand, will continue to decrease. We feel that the number of seasonal local and migrant workers will also tend to decrease, principally because mechanization will play an increasingly important role in the State's agricultural economy. This increase in mechanization, however, is likely to be at a slower rate than in the recent past because of the complexity of the work to be done.

It is really disappointing to us that no national legislation has been developed to provide for the rational handling of the farm labor situation. We feel there is a need for Federal farm labor legislation that would be equitable from the standpoint of both the grower and the farm worker. We recognize that farm workers have the right to join a labor union of their choice. The food needs of the population must be kept in mind. Farmers, also, it must be remembered, have very little bargaining power at harvest time. Unlike most other businesses, the farmer's entire annual income depends on the harvesting of his crop. Most of our specialty crops must be harvested during a relatively short period of time. It is our hope that Federal farm labor legislation will be passed which takes into account the problems of both growers and farm workers and the interests of all consumers in the country.

I appreciate the opportunity to appear before this distinguished Committee of the United States Senate. Thank you.

I will try to answer any questions you may now have.

Senator STEVENSON. We will now hear from Dr. Peter Morrison of the Rand Corp.

STATEMENT OF DR. PETER MORRISON, RAND CORP., SANTA MONICA, CALIF.

Dr. MORRISON. You invited me to testify on the subject of rural-urban migration and the paper I have handed out will furnish an overview of what we know about the subject.

In this oral statement I will summarize the answers to three key questions.

First, why do people move from rural to urban areas?

Second, how does this movement affect migrants?

Third, how does it affect the origins and destinations of this migration?

Regarding the first question, people who move away from rural areas to urban centers do so for many reasons which, taken together, could be viewed as reflecting longrun demographic and economic imbalances. On the demographic side, rural population has always grown more rapidly than urban population. Urban families produce slightly more offspring than are needed for generational replacement; the rural population, however, produces substantially more offspring than required for replacement.

On the economic side, the mechanization of agriculture, as you know, has reduced absolutely the demand for labor in rural areas, and this reduction has fallen very heavily on the kind of farm occupations that tend to be filled by blacks.

So, faced with the prospect of underemployment and unemployment, many people have been drawn to urban centers.

Although the basic causes still remain, the phenomenon of country-to-city migration is largely over. Rural population is largely depleted and there are, in addition, indications that rural areas are beginning to retain a somewhat higher proportion of their growth than before. This is something that appears to have set in during the 1960's. As with many aspects of change, public awareness tends to lag behind the facts that are coming out of the 1970 census.

Turning to the second question, what are the effects of migration on individuals? From the private standpoint, rural-to-urban migration is unquestionably beneficial, measured by improvement in living standards and employment opportunities. Compared to the earlier rural environment, the urban center offers migrants greater earnings, a lower incidence of poverty and unemployment, and higher occupational status. Disadvantaged groups, blacks especially, appear to benefit enormously from moving.

One of the most important effects of migration is that it opens up many paths of occupational mobility that generally do not exist in rural areas. With this new mobility, an individual's social status comes to depend more on his own achievements and less on a legacy of advantage or disadvantage.

The appendix to my prepared testimony contains a detailed review of the evidence that supports these statements. I invite you to glance through it.

How well do migrants adjust to the urban environment? According to the research I have examined, most migrants report they are happier and better off in urban areas than they were in rural areas. Given the choice of all the places they have lived or visited, the vast majority of migrants say they prefer an urban area. Blacks and Mexican-Americans stand out in this regard; Anglos tend to be more or less evenly split.

I should caution that these statements are not readily generalizable to the entire population. The existence of ethnic and regional differences is very pronounced. From what evidence we have, though, I think it is fair to say they appear to be happier, and believe they are better off, after they have moved to an urban area.

Let me turn to the final question: How does migration affect rural areas and urban areas? Outmigration does work in the proper direction in that it reduces labor surplus. But beyond a certain point, it has a tendency to accelerate rural areas' economic obsolescence. It does this in several ways that I would like to call to your attention.

First, outmigration usually draws away the more valuable and productive members of the local labor force. Those who are left behind tend to be undereducated, underskilled, and overaged.

Second, the people who do stay behind are, for a variety of reasons, less likely to migrate. There is a selective process whereby those who are prone to move are drawn off first. The residual, less-mobile population remaining behind means that stronger and stronger economic incentives would be needed to induce additional people to move away (if population and employment were to be kept in balance).

A third reason is that, with a labor force that is declining in quality, many rural areas gradually become less attractive to new industries. Enterprises that want to make use of undereducated, underskilled, and overaged labor force tend to be in nonrural sectors; typically they are marginal firms, in some instances of a fugitive nature, that pay low wages and contribute little to local industrialization.

In short, outmigration leaves behind people who are least able to cope with the unfavorable conditions that originally led to depopulation. The remaining residents have few of the attributes that would attract new employers, or ensure employability, or predispose the residents to move away.

Finally, the rural areas are obligated to educate the young, but the returns on this investment go to other labor markets where these persons migrate, usually as young adults.

What about the impact of rural migration on urban areas? This question has to be answered, I think, against the background of broader changes in population size and composition under way in metropolitan areas. The impression that all metropolitan areas are bursting with population is a misleading one. Growth rates differ considerably from one metropolitan area to another, ranging from explosive, as in the case of San Jose, to instances of absolute decline, as in Pittsburgh.

Within metorpolitan areas, suburbs have expanded outward, drawing whites away from the central city, and the jurisdictional boundaries demarcating the central cities have come to coincide more closely with the boundaries of nonwhite areas. In 1970 there were 16 central cities with more blacks than whites. In Washington, for example, seven out of 10 residents were black.

What part does rural-urban migration play in these changes, both in size and in racial composition? Interestingly enough, net inmigration contributes a relatively small part of urban growth today, about one-fifth of it. Urban centers now grow chiefly through the natural increase of their own native population. Furthermore, if we look at this relatively small net inmigration into the urban centers, only a small fraction of these are rural-to-urban migrants. In fact, most of today's migrants to urban areas emanate from other urban areas. So, while rural migrants are a large demographic subtraction from a small rural base, they are now but a minor addition to a large urban base.

The effect of rural migration on urban destinations is a hotly debated subject. Migration from rural areas, especially black migration, supposedly increases urban poverty, produces ghettos, accelerates the movement of whites to the suburbs, and drastically alters racial composition to central cities. The evidence, however, does not support these suppositions. The cumulative effects of rural-urban migration over many years have contributed to some of the problems that we now see in our cities, but today rural-urban migration is not a major determinant of these problems. Today's urban black is typically the offspring of parents who migrated to the city, but he himself is an indigenous urbanite and his wealth or poverty, allegiance or alienation, success or failure mirror the urban condition.

All in all, rural-urban migration is economically beneficial, as I have said. Migrants are much more like the urbanites whom they join than the rural residents whom they leave. There is little evidence to nourish the belief that migrants impose a significant drain, either absolutely or relatively, on the urban economy today. They may not be a net gain when they first arrive, but they soon become indistinguishable in economic terms from the urban population of the same education, age, and race.

We have concentrated too much on the migrant as a newcomer and as a social problem and have given too little attention to migration as a vehicle of long-run change. The research evidence is not conclusive, but the signals seem to be coming through loud and clear. The individual himself is better off for having migrated and the area he left is relieved of surplus population. The initial cost of absorbing the newcomer at the urban destination is likely to be more than repaid in succeeding years. Using Federal pressure to slow down such migration would seem to be a serious mistake in light of these basic findings.

If curtailing rural-urban migration is not the answer, how can public policy cope effectively with the problems that accompany rural decline?

Policies are most effective where they exploit existing processes of change, where they channel momentum rather than generating it. In my judgment, a more productive direction for policy would be to strengthen the effectiveness of rural outmigration as a mechanism of individual improvement while attempting to offset its negative effects on the origin area.

The point of such policy should be twofold: First, it should aim at improving the welfare of persons who might otherwise find themselves progressively more disadvantaged in isolation from a metropolitan society: and, second, it should retain the diversity of residential settings, rural as well as urban, that can remain viable within such a society.

As to the first suggestion, migration could be a major escape route for disadvantaged members of the rural population. I have in mind particularly the rural population in such areas as the Ozarks, Appalachia, and also the black population. The evidence shows that certain disadvantaged groups such as blacks benefit remarkably when they migrate. It also shows there is a sizeable reservoir of potential migrants, people oriented toward the leaving but who are unable to act on their plans and preferences. There is, I think, an important role here for public policy. Since many of those who do migrate appear to benefit, others who could migrate might also benefit.

Regarding the second objective that I mentioned, we have to be cognizant of the anticipated direction of national urbanization in this country and its implication for rural areas. The American economy and way of life, for better or for worse, will continue to become metropolitan. More and more, people have come to reside either in metropolitan areas, as we now define them, or within the sphere of emerging urban regions. The linkages that define these regions were apparent in 1960, if you will refer to the figure on the top of page 11 in my prepared testimony. Most of the Nation's populated territory was within commuting range of a city, and 95 percent of the U.S. population, rural and urban, resided within the daily commuting field of these cities, if not within their jurisdictional boundaries.

Urbanization can be read as a successive modification of statistical classifications in light of realities that existed decades earlier. I would like to leave with you the thought that much of what is now classified as rural America actually is urban America, writ large and loose. Most of today's rural population will be found living in tomorrow's urban region, oriented to nearby urban centers that provide the goods and services of a metropolitan society.

Thank you.

Senator **Stevenson**. Thank you, Dr. Morrison, for a very comprehensive and provocative statement which, as I say, we will enter in the record at the end of your testimony.

You said that on the basis of your studies, migrants, and I don't know if you were referring exclusively to black migrants, were happier in urban areas than on the farm, in rural America. Isn't happiness a state of mind or spirit that is difficult to quantify and perhaps defies any statistical, or very scientific analysis?

I ask you because I have asked the same question of blacks, and some have told me "yes," as you have asked black migrants in the cities if they are happier, and they will say yes. The blacks tell me that. But I wonder if it is not natural that they will say that. To admit that they are unhappier is to admit defeat. They have been in rural America, they have been on the farms, and they have been in small towns. "They have seen and watched television" is one thing they say. From television in this country you quickly get the impression that the action, the excitement, the glamor of life, is in the cities. They hear from their relatives, maybe their older brother or sister, who have gone to the city that it is exciting, and so they go, too. Only rarely do they admit that defeat, admit that they really are unhappier.

I also have some statistical evidence which seems to conflict with yours. The Commission on Population Growth has been doing some surveys, public opinions, on this question. Among other things the survey indicates that 30 percent of the population now lives in medium and large size cities, but that only 17 percent prefer to live in medium and large size cities. It discloses that 26 percent of the population now live in the suburbs of medium and large size cities; only 18 percent prefer to live there.

On the other side of the coin, this survey indicates that 11 percent of the population live on farms or in open country near farms, that is the classification, and that 34 percent of the people would prefer to live in such communities, on farms and in rural areas.

I don't know how to explain the apparent disparities between your statistical evidence and these, but I do wonder when you try to determine through such techniques where somebody would prefer to live, where he would be happier, whether you aren't taking on a difficult or perhaps impossible assignment.

Dr. MORRISON. Difficult, yes; impossible, no. I think one of the problems with interpreting the question, "Would you rather live in a rural area or in a large city or medium sized city", is that it is usually prefaced with the clause, "If you had your choice". Therein lies the clue to why most people are willing to state in the abstract that yes, they would like to live in a rural area.

I am familiar with the data from the Commission on Population Growth and the American Future. These findings reflect a combination of nostalgia and the actual tradeoff where most people make their compromise. Surveys of this type that probe more deeply indicate that when people choose "rural," they understand a low-density settlement which is within commuting distance of an urban center. They want a rural place to live but an urban level of amenities, health care, and education. Also they seek insulation from urban problems. This type of rural area which they envision we call a suburb.

Now in terms of the evidence I have cited about the rural outmigrants, it refers especially to the deeply disadvantaged. However bad life may be in an inner-city ghetto, it is infinitely better there and offers one much more opportunity than the equivalent situation in rural ghettos.

Most policies aimed at curtailing migration to the cities assume that people would be happier and better off in rural poverty. I can only rely on the statistics, but they show that the incidence of poverty is extremely high in rural areas. Many of us are not familiar with the rural ghetto because it is dispersed and not as visible as the situation in the inner city. The figures that I have seen indicate that blacks and other disadvantaged groups who do move to cities seems to make out much better. They may be little or no better relative to urban population that they join; but certainly, in terms of the standard of living they enjoy, they are considerably better off than where they formerly lived.

I would agree it is very difficult to measure these dimensions. Studies that probe more deeply than with a single question reveal a whole range of different aspects of migrants' adjustment in new areas.

Important factors intervene. For example, did they have assistance when they moved to the city? Were there people there to find jobs for them? Did they have some place to stay when they first arrived? When a group of questions are put together as a composite, they point up many problems associated with this transition to urban society. At the same time, though a host of benefits shows through, and on balance, with the very important qualification about ethnic variations and regional variations, migrants appear to be much better, and believe they are better off, in their new urban setting.

Certainly this evidence corresponds with how people vote with their feet. There is very little black return migration to the South. However, there is substantial return migration by whites because the society they are returning to is not one in which opportunities are restricted. One has to view the evidence as particularly applicable to disadvantaged populations. Perhaps it would not be as applicable to nondisadvantaged populations.

Senator STEVENSON. I just don't know how you strike that balance and conclude that the black migrant is better off in the city. I don't know how you quantify and evaluate all of the conditions that make up his existence in the ghetto, with a drug pusher and a loan shark around every corner, without enough jobs, with no good schools to send children to, with the environmental afflictions that they face in the city. Maybe we don't have time in these hearings, but I think it would be most fortunate if our purpose at some point be devoted to figuring out where he is the least unhappy, in the rural or the urban ghetto.

What I guess we want to try to do is give him a choice. You said a moment ago they didn't have a choice, or you suggested some such thing. That, I think, is really what this hearing is all about. We would really like to try to devise a fair and realistic policy which could give people a choice and an opportunity to lead a happy life in rural America.

I am just not at all sure, from what I have heard from many blacks, that beneath it all they aren't really happier with that unfortunate choice they now have, the rural ghetto as opposed to the urban ghetto.

I also see a 1968 Gallup poll which showed that 56 percent of all Americans would prefer to live in rural communities, 18 percent preferring city life, 25 percent the suburbs. Maybe that is not their choice, but if it is, if the preference is to live in rural communities, it would seem to me that we ought to be trying—you are saying the same thing—to give them that option.

Dr. MORRISON. I am saying we have to distinguish between rural living that is totally isolated, as in Appalachia, and rural settings, whether suburban or exurban, that are viable economically rather than isolated from the American economy.

Senator STEVENSON. Thank you very much, Dr. Morrison.

(The information supplied by Dr. Morrison follows:)

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THE IMPACT AND SIGNIFICANCE OF RURAL-URBAN MIGRATION IN THE UNITED STATES

by

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The Rand Corporation, Santa Monica, California

January 1972

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*This testimony was prepared at the request of the Migratory Labor Subcommittee, Committee on Labor and Public Welfare, U.S. Senate. The views expressed in this paper are those of the author. They should not be interpreted as reflecting any views of The Rand Corporation or the official opinion or policy of any of its governmental or private research sponsors. Papers are reproduced by The Rand Corporation as a courtesy to members of its staff. I wish to thank my colleague, Ira S. Lowry, for valuable assistance and advice in the preparation of this paper.

In considering future policies on migration and labor, this Subcommittee should remain abreast of recent research on the rural-to-urban movement of population. This testimony furnishes a brief overview of evidence bearing on three key questions:

1. What causes people to move from rural to urban areas?
2. How does this movement affect migrants?
3. How does it affect rural origin and urban destination areas?

I. DETERMINANTS OF RURAL-URBAN MIGRATION

People move away from rural areas and into urban centers for many reasons which, taken together, reflect long-run demographic and economic imbalances. On the demographic side, rural population has always grown more rapidly than urban population.* Urban families produce slightly more offspring than are needed for generational replacement; rural families, however, produce substantially more offspring.

On the economic side, the mechanization of agriculture has led to an absolute decrease in demand for labor in rural areas. This decrease has been particularly sharp in those farm occupations that tend to be filled by blacks.**

The combined effect of these two factors in rural areas -- high fertility and shrinking labor demand -- has been increasing unemployment and underemployment. Faced with this prospect, many people have been drawn to urban centers, attracted by both jobs and amenities heard about through relatives and friends and, increasingly, the mass media.

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*In 1969, for example, the cumulative fertility of women nearing the end of the childbearing period (35-44 years old) was 12 percent higher for nonmetropolitan women (and 28 percent higher for farm women), than for metropolitan women. Source: U.S. Bureau of the Census, *Current Population Reports*, Series P-20, No. 203, July 6, 1970, Table 5.

**In the South, for example, the number of white family workers in agricultural employment in 1969 was approximately 44 percent of what it was in 1950. For blacks, however, the comparable decline left 1969 employment at only 21 percent of its 1950 level. (Figures cited in Daniel O. Price, *Rural-Urban Migration and Poverty: A Synthesis of Research Findings, With a Look at the Literature*, Office of Economic Opportunity, Washington, D.C., July 1971, pp. 2-3.)

Now, however, country-to-city movement is largely over. The farm population has shrunk to about one-third its 1940 size, and the peak off-farm movement is long past. The non-farm segment, which is about 80 percent of the rural population, will be the principal source of future rural-urban movement. Here, too, the outlook is for reduced outmigration: natural increase was lower during the 1960s, and rural areas appear to be retaining a much higher proportion of their growth than formerly. As with many aspects of change, public awareness lags about a decade behind the trend.

II. THE EFFECTS ON MIGRANTS

What are the effects of migration on individuals? From the private standpoint, rural-urban migration is unquestionably beneficial, measured by improvement in living standards and employment opportunities. Compared to the earlier rural environment, the urban center offers migrants greater earnings, a lower incidence of poverty and unemployment, and higher occupational status. Disadvantaged groups -- blacks especially -- appear to benefit enormously from moving. Thus, one of the most important effects of migration is that it opens up many paths of occupational mobility that generally do not exist in rural areas. With this new mobility, an individual's social status comes to depend more on his own achievements and less on inherited advantage or disadvantage. (A detailed review of the evidence supporting these statements is furnished in the Appendix.)

A key question, with major policy implications, is: To what extent are all of these favorable effects the *results* of migration rather than the *characteristics* of people who choose to migrate? At this point we do not know, except that something of each seems to be operating. The initiative it takes to migrate is known to be more characteristic of people with superior social origin, education, and work experience -- all factors that make for upward social mobility. To a great extent, then, migration moves people more likely to succeed anywhere to places where the greatest opportunities for success are available to anyone.[*]

How well do rural migrants adjust to an urban environment? Generalizations about adjustment are difficult because: (1) the outward signs of adjustment vary from one subculture to another; (2) a migrant may be "adjusted" within the confines of his immediate group, but not integrated into the broader community, (3) migrants' success in adjusting to a new environment is, in part, shaped by their motivations for moving.[**]

Most studies agree that friends and relatives play a crucial role in the adjustment process. Length of residence in the city is another important factor. And, as would be expected, the migrant is nearly always satisfied when he experiences economic success.

Migrants' sense of well-being, as they report it in the urban environment, tends to be quite high, although ethnic variations do exist. A recent comparative study found Mexican-Americans to be the happiest and least frustrated by urban life. Blacks were disappointed and alienated somewhat more frequently (even though their economic improvement was the most dramatic). Anglos, although not inordinately disappointed with urban life, were the most frequent to desire rural living once again. These differences should not, however, obscure the fact that most migrants report being happier and better off in urban than in rural areas.[***] And given their choice of all the places they had lived or visited, the vast majority of migrant blacks and Mexican-Americans stated they preferred urban areas. Anglos were about evenly divided between urban and rural areas.

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[*] Peter M. Blau and Otis Dudley Duncan, *The American Occupational Structure* (New York: John Wiley, 1967), p. 273.

[**] Price, op. cit., Chapter 5.

[***] Daniel O. Price, *A Study of Economic Consequences of Rural to Urban Migration*, 3 vols., Office of Economic Opportunity, Washington, D.C., 1969.

Any research on subjective evaluations of urban living must be heavily qualified. So far as we can tap these dimensions, though, migrants appear to be happier, and believe they are better off, after moving to an urban area.

Let me turn now to the final question: How does migration affect rural areas and urban areas?

III. THE IMPACT OF MIGRATION ON ORIGIN AND DESTINATION AREAS

Outmigration from rural areas acts as an economic adjustment mechanism by reducing labor surpluses and lessening competition for scarce employment. But beyond a certain point, it tends to accelerate rural areas' economic obsolescence in several ways.

First, since outmigration usually draws away the more valuable and productive members of the labor force -- the young, the more educated, and the skilled -- the labor force left behind tends to be under-educated, under-skilled, and over-aged. This effect often is further accentuated by inmigration of people similar to those remaining.

Second, since the people who stay are generally less likely to migrate subsequently, the remaining population also shows a gradually reduced potential for mobility. This means that stronger and stronger economic incentives would be required to induce additional people to move away in order to maintain any balance between population and shrinking employment.

Third, with a labor force that is declining in quality, rural areas become less attractive to new industries looking for a supply of skilled workers. Enterprises that want an under-educated, under-skilled, and over-aged labor force tend to be in non-growth sectors -- marginal firms paying low wages and contributing little to local industrialization.

Prolonged and heavy outmigration, then, leaves behind those people who are least able to cope with the unfavorable conditions that have led to depopulation. The remaining residents possess few of the attributes and skills that would attract new employers, assure employability, or predispose them to move away. Finally, rural areas are obligated to educate the young, but the returns on this investment in human capital are paid out to other labor markets to which these persons migrate -- usually as young adults.

What about the impact of rural migrants on urban areas? This question must be answered against the background of broader changes in population size and composition under way in metropolitan areas. The impression that all large metropolitan centers are bursting with population is misleading. Of the 66 Standard Metropolitan Statistical Areas (SMSAs) with half a million or more residents in 1970, only 12 had increased 30 percent or more since 1960; 17 registered increases of 10 percent or less; and 2 actually declined in size. In short, growth rates differ considerably from one SMSA to another.

Within metropolitan areas, widespread -- though not universal -- affluence has enlarged the functional limits of urban territory and sharpened differentiations with it. Suburbs have expanded outward, drawing whites away from central cities; and the anachronistic jurisdictional boundaries demarcating central cities have come to coincide more closely with the boundaries of nonwhite areas. Thus, in 1970, 16 central cities had more black than white residents, and in some (e.g., Washington, D.C.) seven out of ten residents were black.

What part does rural-urban migration play in these numerical and racial changes? Interestingly enough, a relatively small part of urban growth -- about one-fifth -- is contributed by net inmigration; the major share comes from natural increase. Furthermore, of this relatively small inmigration into urban centers, only a small fraction are migrants from rural areas; most of today's migrants to urban areas emanate from other urban areas. *Hence, while rural migrants are a large demographic subtraction from a small rural base, they are only a minor addition to a large urban base.* To be sure, country-to-city migration has contributed a sizeable portion of urban growth in the past. But in numerical terms, its role today is minor and will continue to shrink as the rural population is further depleted.

The effect of rural migration on urban destinations is a hotly debated subject. The handicaps that rural origin allegedly confers on people moving to urban areas have been emphasized almost to the point where all poor urbanites are assumed to be country migrants. Migration from rural areas -- especially black migration -- supposedly increases urban poverty, produces ghettos, accelerates the movement of whites to the suburbs, and drastically alters racial composition in central cities. The evidence, however, fails to support these suppositions. The cumulative effects of many years of rural-urban migration may have contributed to some of the problems now visible in the cities; but rural-urban migration today is not a major determinant of these problems. Today's urban black is typically the offspring of parents who migrated to the city, but he is himself an indigenous urbanite, and his wealth or poverty, allegiance or alienation, and success or failure mirror the urban condition.

If the influx of rural population into the cities today is relatively small (and shrinking), why is it blamed for so many urban ills? This question is really several other more specific questions that can be answered on the basis of recent studies.

1. *Does migration serve merely to transplant rural poverty to urban settings?*

Not to any substantial extent for whites, and not at all for blacks. White rural-urban migrants have a somewhat higher incidence of poverty than do the urban whites they join; poverty among black migrants, however, is no more frequent than for their counterparts of urban origin. In fact, black migrants in the young adult years (17-29) are much less likely to be poor than their urban counterparts (see Appendix, Table 1). There is a vast difference, however, between whites and blacks in poverty, suggesting that being black is much more a determinant of poverty than is a rural background.

Comparative data on income show a similar pattern. Among whites, rural-urban migrants have somewhat lower incomes than the urban population of urban origin. Among blacks, though, rural-urban migrants earn incomes no lower than the urban-origin population. In a word, whites are somewhat disadvantaged by rural background; blacks are substantially disadvantaged by their race, regardless of their background.

2. *Do rural-urban migrants add to the welfare roles in disproportionate numbers?*

Recent studies show that migrants — whites especially — claim welfare benefits somewhat more frequently than their urban counterparts. But once again differences of background are eclipsed by those associated with race: of white families headed by rural-urban migrants, 4.0 percent received some form of welfare assistance in 1966, compared with 2.3 percent for the population of urban origin. For black families, the corresponding figures are 17.3 percent and 15.6 percent.[*] (Unrelated individuals show the same pattern.)

These differences must, however, be interpreted carefully. Other studies show that favorable welfare benefits are *not* what draws low-income families to large metropolitan areas like New York and Chicago. In the New York metropolitan area, for example, relatively few of those migrants receiving public assistance in 1966 were recent arrivals. Indeed, fully 85 percent of the black migrants, and 75 percent of the white migrants, receiving assistance had entered the area prior to 1960.

Rising levels of urban welfare dependency reflect the concentration in central cities of the aged, the disabled, and the female-headed household. Today this concentration arises chiefly from the selective outflow of whites and the affluent, leaving behind in the central city an increasingly welfare-prone population. The burden of responding to these demands, however, falls on relatively few units of government that, for historical reasons, are conditioned to be more responsive than are rural governments to these needs. In this sense, national problems of disadvantage and discrimination — not necessarily problems *of* cities — come to be located *in* them.

3. *Is rural-urban migration of blacks responsible for changing racial composition in the cities?*

Not any longer. Today's base population of urban blacks, if not of rural origin, is ultimately of rural descent; but that is history.

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[*] Gladys K. Bowles, "A Profile of the Incidence of Poverty Among Rural-Urban Migrants and Comparative Populations," paper presented at the annual meeting of the Rural Sociological Society, August 1970, Washington, D.C., Table 1.

By 1970, three out of every five blacks lived in the central city of a metropolitan area; hence, that is where natural increase occurs. The racial composition of cities is becoming increasingly black because of the cumulative effects of *previous* inmigration, compounded by *subsequent* natural increase of black urbanites and movement of whites to the outlying suburbs. The pattern is well recognized and characterizes all metropolitan areas, whether or not rural blacks still flow into them. Central cities with a predominantly black population reflect a racially separate society, in which municipal boundaries have come to coincide with economic and social boundaries imposed by racial discrimination.

All in all, rural-urban migrants are economically much more like the urbanites they join than the rural residents they leave. There is little evidence to nourish the belief that rural migrants impose a significant drain -- absolutely or relatively -- on the urban economy today. Although they may not comprise a net gain when they first arrive, migrants of rural origin soon become indistinguishable economically from the urban host population of the same education, age, race, and sex.[*]

IV. CONCLUSIONS

Over a decade ago, Donald Bogue observed, "We have concentrated too much on the migrant as a newcomer and as a social problem and have given too little attention to migration as a vehicle of long-run change." Subsequent evidence has shown this statement to be especially applicable to rural-urban migration. The individual himself is better off for having migrated, the area left is relieved of surplus population, and the initial cost of absorbing the newcomer at the urban destination is likely to be more than repaid in succeeding years. *Using Federal pressure to slow down such migration would seem to be a serious mistake in light of these basic conclusions.*

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[*] Richard F. Wertheimer, II, *The Monetary Rewards of Migration Within the U.S.* (Washington: The Urban Institute, 1970).

If curtailing rural-urban migration is not the answer, how can public policy cope effectively with the problems that accompany rural decline? The answer to this question hinges largely on what we believe these problems to be.

Chronic decline confronts policymakers with a "people problem" and a "place problem." The "people problem" centers on the residual population left behind by prolonged outmigration -- residents who possess few of the attributes and skills that assure employability. The "place problem" is that, within the larger context of a metropolitan society, certain areas are no longer competitive. They have little prospect of attracting economic activity, although subsidies sometimes prolong their decline, enabling them to attract marginal firms paying low wages.

The thrust of past policies has been distinctly place-oriented. They have sought, through infusion of development funds, to revitalize declining areas on the assumption that these measures would increase and sustain the welfare of people living there.

But policies are most effective where they exploit existing processes of change, channeling momentum rather than generating it. In my judgment, a more productive direction for policy would be to strengthen the effectiveness of rural outmigration as a mechanism of individual improvement while attempting to offset its negative effects on the origin areas. The point of such policy should be to both (1) improve the welfare of persons who might otherwise find themselves progressively more disadvantaged in isolation from a metropolitan society and (2) retain the diversity of residential settings -- rural and urban -- that can remain economically viable within such a society.

Gains in income and occupational status, and reduction of poverty and unemployment, suggest that migration could be a major escape route for disadvantaged members of the rural population. The evidence shows that certain disadvantaged groups -- blacks especially -- benefit remarkably when they migrate. This fact, coupled with evidence that there is a sizeable reservoir of potential migrants -- people who are oriented toward moving but fail to act on their plans or preferences --

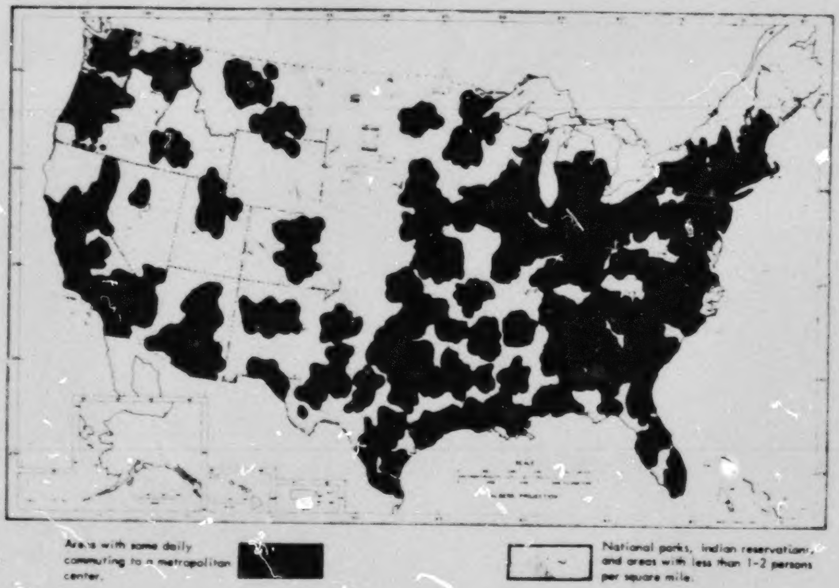
Areas with some daily commuting to a metropolitan center.
National parks, indian reservations, and areas with less than 1-2 persons per square mile.

Fig. 1 -- Commuting Areas, Unpopulated Areas, and Population Gaps.

SOURCE: U.S. Bureau of the Census, *Metropolitan Area Definition: A Re-Evaluation of Concept and Statistical Practice* (Bureau of the Census Working Paper No. 28) Washington, D.C., 1968.

suggests that there is an important role for public policy. Since many of those who *do* migrate benefit, others who *could* migrate might also benefit.

We must also assess the extent of anticipated national urbanization and its implications for rural areas. The American economy and way of life, for better or worse, will continue to become metropolitan. More and more, people have come to reside either in metropolitan areas, as now defined, or within the functional sphere of emerging megalopolises. The linkages that define these large, decentralized, heterogeneous urban regions were apparent even in 1960: most of the nation's populated territory was within commuting range of a city (see Fig. 1); and fully 95 percent of the U.S. population already resided within their daily commuting fields, if not within their jurisdictional boundaries.

Urbanization can be read as a successive modification of statistical classifications in light of realities that existed decades earlier. I should like to leave with you the thought that much of what is now classified as rural America really is urban America, writ large and loose. Most of today's rural population will be found living in tomorrow's urban region, oriented to nearby urban centers that provide the goods and services of a metropolitan society.

Appendix

OBJECTIVE BENEFITS OF MIGRATION

Objective benefits comprise effects that are related to economic well-being: improvements in earnings, avoidance of poverty, and enhancement of occupational status. These dimensions are measurable, and sufficient research exists to permit useful conclusions about what types of migration are personally advantageous for which people.

Monetary Gains

Comparing migrants with nonmigratory individuals who are similar in other respects is one useful way to examine how mobility and earnings are related. Certain types of moves are especially likely to be accompanied by higher incomes. In particular, "people who have left rural areas for urban areas now earn more on the average than those who remained in rural areas, and people who have left the Deep South now earn more on the average than those who remained there."[*] This statement must be interpreted carefully, the authors caution, so as not to confuse the absolute effect of *mobility* with the persistence of relative *disadvantages* that mobility may partially reduce but not eliminate. Thus, people moving from rural to urban areas, while improving their earnings relative to those remaining behind, may still find themselves disadvantaged relative to persons at the destination.

These findings are amplified in another study, which estimated the present value of expected gains in lifetime income associated with various kinds of migration. Overall, the results underscore that "there are substantial economic gains to be had by moving out of the South and by moving from rural areas into cities."[**] South-to-North migration is especially profitable for nonwhites. Regarding urbanward moves, "The return to migration for most migrants from rural areas to urban areas ranges from $3,650 for small cities, $5,075 for medium cities, $9,125 for large cities, to $12,500 for very large cities, using a 10 percent rate of discount.[*]

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[*] John B. Lansing and James N. Morgan, "The Effect of Geographical Mobility on Income," *The Journal of Human Resources*, Vol. 2 (Fall 1967), p. 460.

[**] Wertheimer, op. cit., p. 57.

Even after adjustment for cost of living, the income gains correlated with migration remain positive and, for migrants with initially low incomes, very large. Other studies confirm that despite higher living costs in urban areas, migrants experience a real increase in standard of living as compared with rural areas.[**]

Reduction of Poverty

Poverty in the United States is heavily concentrated in rural areas. In 1967, 22 percent of the adult rural population of rural origin fell below federally defined poverty thresholds, or nearly 70 percent above the nationwide level.[***] Rural poverty may be less evident than its urban counterpart, being less visibly concentrated in one place. As reservoirs of poverty, though, rural areas are more meaningful statistically; for the policymaker, they also offer a dramatic illustration of migration's effectiveness in alleviating poverty for residents who are willing to leave.

A series of recent studies based on the Survey of Economic Opportunity has compared the incidence of poverty among rural-to-urban migrants with that for comparable populations at origin and destination.[****]

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[*] Ibid., p. 58.

[**] Daniel O. Price, *A Study of Economic Consequences of Rural to Urban Migration*, 3 vols., Office of Economic Opportunity, Washington, D.C., 1969; William L. Hamilton et al., *The Causes of Rural to Urban Migration Among the Poor*, Final Report submitted to Office of Economic Opportunity by Abt Associates, Inc., March 1970.

[***] Bowles, op. cit., p. 7.

[****] "Incidence of poverty" is the percentage of population living under poverty conditions. It refers to conditions in 1967, not those prevailing at the time the migrants left or joined other populations.

Data shown in Table 1 refer to three adult groups: (1) the rural population of rural origin (rural nonmigrants and rural-rural migrants), (2) rural-urban migrants (persons who resided in rural areas at age 16 but in urban areas in 1967), and (3) the urban population of urban origin (urban nonmigrants and urban-urban migrants). These figures show that by moving to urban areas, migrants -- especially blacks -- tend to improve their economic well-being compared to persons who remain in rural areas. For the total adult population, the incidence of poverty is considerably lower for rural-urban migrants (12 percent) than for the rural origin population (22 percent), although not as low as for the urban host population (9 percent). Reduction in blacks' poverty is impressive: whereas nearly six in ten of the origin group are in poverty, only about one in four migrants are.

When particular age categories of the black population are examined, the decline in poverty is especially dramatic. For the age group 17 through 29, the incidence of poverty is 21.5 percent for migrants, well below that for the urban host population (27.3 percent) and a major improvement over the level at origin (57.1 percent). For several other segments of the black population, this pattern is duplicated: the lowest incidence of poverty is found among rural-urban migrants.

A related analysis based on the Survey of Economic Opportunity examined two further aspects of poverty: (1) whether its frequency among rural-urban migrants varies according to the size of the destination where they move, and (2) whether poverty is less frequent among migrants who have resided longer in urban areas.* The answer to each question is substantially different for blacks than for whites.

Regarding the first, Figure 2 shows that the incidence of poverty for black rural-urban migrants declines consistently with increasing size of destination. "An incidence of poverty of 41 percent for Negro rural-urban migrants in nonmetropolitan areas and of 20 percent for those in metropolitan areas of 750,000 population and over represents

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* P. Neal Ritchey, "Poverty Among Rural-Urban Migrants to Metropolitan Areas," paper presented at the annual meeting of the Rural Sociological Society, August 1970, Washington, D.C.

Table 1

COMPARATIVE INCIDENCE OF POVERTY IN 1967 BY SELECTED CHARACTERISTICS: RURAL-URBAN MIGRANTS AND OTHER POPULATIONS

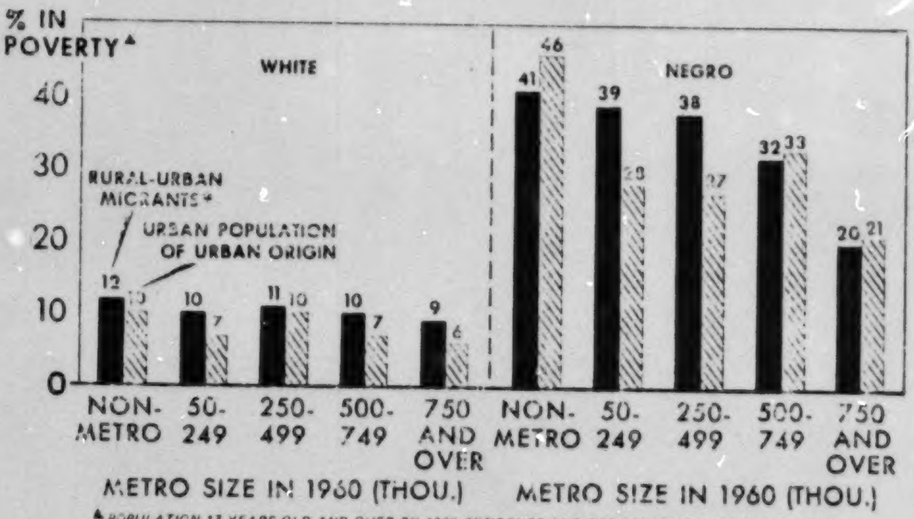
Characteristic	Percentage in Poverty[a]								
	Rural Population of Rural Origin (Origin Population)			Rural-Urban Migrants			Urban Population of Urban Origin (Host Population)		
	All Races[b]	White	Negro	All Races[b]	White	Negro	All Races[b]	White	Negro
POPULATION, 17 YEARS OLD AND OVER	21.9	18.1	57.7	12.1	10.1	26.6	9.4	7.4	26.9
Age:									
17-29 Years Old	17.6	12.0	57.1	12.2	10.7	21.5	9.1	6.6	27.3
30-49 Years Old	17.8	14.3	54.2	7.7	5.5	21.6	7.3	5.2	24.9
50 Years Old and Over	28.3	25.3	61.4	15.5	13.3	33.5	12.0	10.5	29.1
Educational Attainment:									
Less Than 8 Years of School Completed	35.7	30.9	62.6	22.4	19.5	34.2	20.4	17.0	36.9
9-11 Years	20.4	16.2	56.9	11.7	10.0	23.3	11.7	8.5	32.0
12 Years	9.2	7.9	38.9	5.5	4.6	15.3	5.1	4.1	16.8
13 or More Years	6.4	5.8	26.7	4.8	4.5	10.7	4.3	3.9	10.1
Occupation of Males Employed in 1966:	10.5	13.2	51.0	6.9	5.5	16.1	4.9	3.8	14.9
White Collar Occupations	6.8	6.6	17.0	3.5	2.9	16.3	2.3	2.1	8.[illegible]
Blue Collar Occupations	12.7	9.8	38.5	8.3	6.6	15.3	6.6	5.1	16.2
Laborers	22.5	16.7	45.5	16.2	14.3	19.3	11.3	8.0	21.3
Service Workers	16.9	14.4	32.9	14.4	11.3	21.3	10.0	7.8	18.7
Operatives	11.6	8.8	33.0	6.9	5.3	13.0	5.8	5.1	9.9
Craftsmen	7.8	7.0	19.4	4.6	4.6	5.3	4.1	3.1	18.2
Agricultural Occupations	34.7	28.6	79.9	(c)	(c)	(c)	23.8	21.7	(c)

SOURCE: Adapted from Bowles, op. cit., Table 3. (Based on the 1967 Survey of Economic Opportunity.)

[a] Unless otherwise specified, the total population is the civilian noninstitutional population 17 years old and over in February 1967. The poverty population includes persons 17 years old and over in "interview units" which were at or below the income threshold established by the federal government for units with given age and sex of head, number and composition of members, and farm-nonfarm place of residence. The term interview unit may be equated with "families and unrelated individuals" customarily used in current population surveys of the Bureau of the Census.

[b] Includes White, Negro, and other races.

[c] Insufficient cases.



▲POPULATION 17 YEARS OLD AND OVER BY 1967 RESIDENCE AND RESIDENCE AT AGE 16 OR EARLIER
*MIGRANTS ARE PERSONS WHO HAVE EVER LIVED MORE THAN 50 MILES FROM THEIR 1967 ADDRESS
DATA FROM THE 1967 SURVEY OF ECONOMIC OPPORTUNITY

Fig. 2 -- Incidence of Poverty Among Rural-Urban Migrants and Other Urban Residents 1967, By Race and Metropolitan Residence

SOURCE: Ritchey, op. cit.

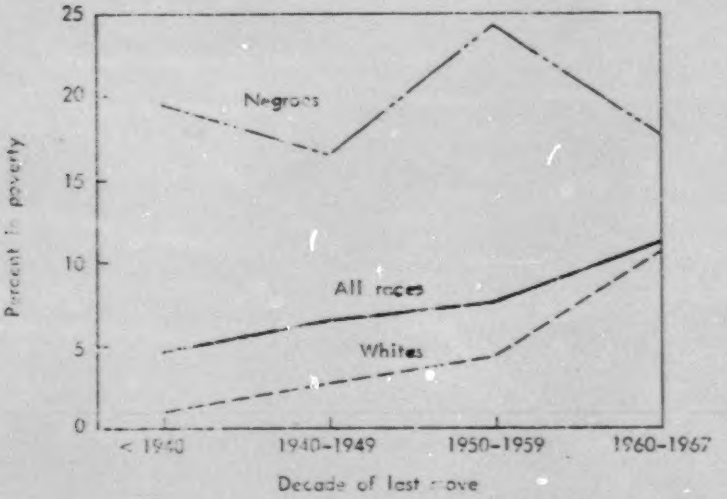


Fig.3—Incidence of poverty in 1967 by decade of last move: rural-urban migrants, 30–49 years old, in metropolitan areas ≥ 250,000 population.

SOURCE: Ritchey, ibid., Table 8 (based on the 1967 Survey of Economic Opportunity.

a total decrease of 21 percentage points as size of place increased."[*] Among white rural-urban migrants, on the other hand, this pattern is notably absent except for the two highest-size categories. As migratory destinations, larger urban areas appear to be more conducive to economic well-being for blacks, but hardly so for whites.

As to the second question -- whether the incidence of poverty declines with prolonged urban experience -- the answer again differs for whites and blacks. Figure 3 shows the incidence of poverty in 1967 for rural-urban migrants by recency of moving into metropolitan areas. For whites, poverty declines sharply with increased duration of urban experience -- from 11 percent to 1 percent. In marked contrast, poverty among black migrants shows no decline: long-term residents are in poverty as frequently as more recent arrivals to the urban center.

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[*] Ibid., p. 10.

The same difference was found when specific parts of metropolitan areas -- central cities or poor areas within central cities -- were examined. Unlike their white counterparts, black rural-urban migrants do not show a decline in poverty with prolonged urban experience. Evidently, factors accounting for the high incidence of poverty among blacks, while reduced by urbanward movement, are not mitigated by continued urban experience.

Occupational Gains

The above sections, which have examined specific aspects of individuals' economic well-being, show migration to be associated with beneficial outcomes -- whether gains in income or avoidance of poverty. These specific findings accord neatly with the results of a considerably broader analysis of the American occupational structure in which the occupational careers of migrants also proved to be superior to those of nonmigrants:

> Whether migration between regions or between communities is examined; whether migration since birth or only after adolescence is considered; whether migrants are compared to nonmigrants within ethnic-nativity groupings or without employing these controls; whether education and first job are held constant; and whether migrants are compared to natives in their place of origin or their place of destination -- migrants tend to attain higher occupational levels and to experience more upward mobility than nonmigrants, with only a few exceptions.*

Conclusion

Moving appears to be accompanied by substantial economic benefits, particularly for rural-urban migrants and for blacks. Contrary to conventional wisdom, black migrants to large metropolitan areas tend to

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*Peter M. Blau and Otis Dudley Duncan, *The American Occupational Structure* (New York: John Wiley, 1967), p. 272.

make large economic improvements. Continued residence in the city, however, does not appear to produce further gains for blacks as it does for whites. Reflecting on this point, Beale observes:

> The general picture that emerges . . . is that black rural-urban migrants, despite a distinct educational disadvantage until recent years, have succeeded in earning average family incomes nearly the equal of that of black urban natives and in doing so have avoided any incidence of poverty disproportionate to that of other urban blacks. Nor do they appear to have any but a marginally greater reliance on welfare income. I doubt that these findings conform to the general stereotype of the economic status of black rural migrants, especially those who have come to Northern and Western cities from the South. Furthermore, on any available scale of comparison, their economic and educational status is far superior to that of blacks still living in rural areas. It is well to reiterate, however, that the black rural-urban migrants are far more afflicted with poverty in the cities than are their white counterparts.*

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*Calvin L. Beale, "Rural-Urban Migration of Blacks: Past and Future," paper presented at the American Agricultural Economics Association Meeting, Detroit, Michigan, December 1970, p. 13.

Senator STEVENSON. Our next witness is Charles Davenport of the law school of the University of California at Davis.

STATEMENT OF CHARLES DAVENPORT, SCHOOL OF LAW, UNIVERSITY OF CALIFORNIA AT DAVIS, CALIF.

TAX POLICIES

Mr. DAVENPORT. I thank you for the opportunity to be here this afternoon to discuss the Federal tax laws with relationship to agriculture and migratory labor. Even though some of the other witnesses have touched on this subject briefly, I have a statement and I am going to try to summarize it to cut the time. But there are features of it that I would like to cover rather carefully. They indicate how it is that some people have a benefit conferred upon them by the Federal tax law which is not available to others.

It was touched on by Keith Roberts, who talked about the deduction of expenditures which are called capital expenditures.

In most businesses, there are items that will produce income over a period of time. The cost of them cannot be deducted from income. This is not always true for agricultural assets. Generally, in the livestock area and in fruit and nut crops where the major costs are the costs of raising the product, these costs may be deducted as they are incurred. Perhaps the problem of this should be spelled out a little bit.

Let's assume I am to take $100 and put it into what we call cultural practices associated with an orchard, that is, the costs which are connected with the growing of the trees after they have been planted. The planting cost must be capitalized; it cannot be deducted. I take $100 of these cultural practices and invest them in my orchard. I can deduct that, and this gives me a farm tax loss. If I am in a 70 percent tax bracket and have a lot of other outside income, I can take a farm tax loss and reduce my taxes on my other income by $70. That leaves me with just $30 invested in the orchard. If I hadn't had my other outside income, say, earned from the practice of law, investment business, or something of that nature, the farm tax loss would have been of no use to me during that year. The consequence of being able to deduct this farm tax loss was demonstrated some years ago by Prof. Cary Brown. If I can deduct the cost of acquiring an asset which is used in my business over a period of time, the income which is then produced by my remaining investment, in the example I gave, by my $30, which is tied up in my orchard now, the income which is produced by that orchard, in effect, does not bear any federal income taxes at all.

This is what we call in the farm tax area a zero tax rate. The zero tax rate is not good enough for some investors. If he is shrewd, he will try for what is called a negative tax benefit.

How does a negative tax benefit come about? Suppose I sell my orchard into which I originally put the $100 and sell it exactly at my cost, for $100. If I can report that sale, and usually I can, as long-term capital gain, I do not declare the entire $100 as taxable income in the year of sale. Instead I am permitted, by the law, to declare my income as only $50. If that $50 bears the same 70 percent tax rate, I will pay in the year of sale $35 in Federal taxes.

I might note as an aside, one witness mentioned there would be a 25 percent tax rate. That rate has been changed since 1969. At this point, if I can count up my benefits, you notice I have my $100 back on my original investment. In addition I saved myself $70 when I made the investment in cultural practices expenditures, and that gives me a total of $170. I have paid, however, $35 in taxes, which leaves me with $135. The consequence of this is, on an investment which just broke even economically, I am ahead by $35. I have $35 in my pocket that I would not otherwise have. It is just like a payment from the Federal Government to me for engaging in the orchard business. This aspect has been referred to as a negative tax.

In 1969 when some of these farm provisions were up for question by Congress, there were a lot of arguments about this policy being a deliberate policy on the part of Congress to subsidize farmers. That argument seems to me not to hold water because, for the most part, the subsidy aspect rests on the administrative action taken by the Department of the Treasury in 1915 and 1919. Furthermore, I would question whether the Treasury Department has authority to subsidize farm operations through administrative action. At least until 1971 I had never heard the Treasury Department say it was empowered to dispense subsidies to business.

The capital gain aspect, which is only a part of the subsidy, was added rather inadvertently in 1942 and 1951. In large part I think the administrative actions on which the subsidy is based rest upon an assumption that farming is a way of life and not a business.

We might note that the revenue losses from the interaction of those provisions are estimated at more than $800 million annually.

That is the situation as it existed before 1969. In 1969 Congress added a number of exceedingly complex and confusing provisions to deal with farm losses. I do not want to dwell on this point. They are largely ineffective. I have heard no one assert—with the exception of the provision which, as originally enacted, related only to citrus, and in 1970 it was extended to almonds—I have heard no one suggest that the 1969 act reduced the subsidy, the tax benefit for many tax farmers.

Also we should have known ahead of time that the 1969 legislation would not be effective because the best estimates on the revenue to be generated by the 1969 changes was about $20 million, approximately one fortieth of the annual revenue loss attributable to the interaction of premature deductions and long-term capital gain. That is 2½ percent of the lost revenue was estimated to be recovered by the 1969 act.

Those revenue estimates, incidentally, are on the annual basis.

What is the effect of all this on agriculture? The major thing that we have to focus on is that these benefits are available only to one who has a large source of income from sources other than the farm. Generally speaking, this boils down to two kinds of taxpayers. One of them is the large corporate conglomerate farmer who has other profitable businesses which, without the farm tax loss, would bear a tax rate of approximately 48 percent. Finally, there are individual taxpayers with higher tax brackets with rates ranging all the way up to 70 percent.

In the usual case, one finds that an individual taxpayer might not have sufficient capital to go into the farming business and he invests through a syndicate. Syndications today are the name of the tax shelter game, one of them, anyway, in California. In a syndication, a group of promoters will combine with persons who have some farm expertise and who control some land. The funds for the development are then raised through the sale of limited partnership interests to numerous investors from Wall Street to Montgomery Street. The equity in these cases is invested by these investors who are told in the offering brochures that they can write off 50, 150, 200, in a good one maybe 300 percent of their capital investment in the year of investing. By doing so, they are left with little or nothing in the enterprise, but continue to receive tax benefits which we have normally reserved for equity.

In most of the syndications, I would expect that the investors anticipate a sale at capital gains rates within a relatively short period of time, probably not more than 8 years.

What is the result of all of this? The common thread between these investors is the large source of income from the security business, the Wall Street law practice, their medical practice, from which they take income and invest it in the farm assets and obtain a farm loss. This is what attracts them. Since a good part of their returns is the reduction in taxes on nonfarm income, they can survive on much lesser economic margins than those who do not have these sources of outside income. The consequence is a weakening and a driving out of those who are dependent upon agriculture for their livelihood. Those who can garner the tax subsidy do not have to rely on the land to produce an acceptable return. Rather, they combine whatever benefits there are from the product of the land with the tax subsidy. Together these will make up at least an economic profit.

One consequence, then, is to drive out the taxpayers who do not have income from sources other than farming. Another is an overcapitalization with a consequential overproduction of certain kinds of products. We say this greatly, for instance, in citrus and almonds before the changes were made in 1969 and 1970.

I might point out on the side here, Valencia oranges went from in 1960, almost $3.97 a box down to $1.95 a box in 1970.

Another consequence is absentee ownership. The capital which is involved in this kind of syndication and conglomerate corporations is also absentee capital. I do not intend to speculate on whether or not that is good for farming, but it does have another feature to it. If you have absentee capital, management that is managing the farm investment does not have its own capital. The consequence is that the managers who make the decisions affect somebody else's profitability. Such decisions are likely to reflect a higher degree of objectivity and not much of the social consciousness that you might expect if we had people employing their own capital were making those decisions.

Another consequence is that in these cases the ownership is large-scale ownership, because it is very easy to aggregate large amounts of capital and, indeed, the front-end costs, those are the costs of lawyers, the accountants, the printers, the costs of marketing the syndication, are so high that large amounts of capital must necessarily be raised and be fed into the agricultural process. Over all, I think that the consequences of the subsidy from our tax loss to certain kinds of farming has changed what used to be an American way of life known as farming, into a business, and in large business with absentee ownership.

Once farming becomes a business, it seems to me that it should be at least subject to most of the regulatory measures, such as workmen's compensation, with unemployment insurance and the like, that other businesses have to carry.

These tax benefits are unfair in the sense that they benefit only those who have substantial nonfarm income and, indeed, they even prefer people who have that kind of income and who are willing to make farm investments over those who, for one reason or another, do not want to make farm investments. This is a problem which has been much written about and discussed; indeed, I and others have written on it. I do not have with me today, but I would like at some point to submit for the record some of the writings in this area which detail with greater clarity how the tax subsidy operates.

If I could, I might also take a point that was mentioned by Mr. Friedland this morning about corporations in farming. He indicated there was some particular benefit to incorporate. In a sense that is true. Even the family farm might well be incorporated.

I think there would be two benefits that one might obtain from that. One of those benefits would be the pension and profit-sharing plans which are available to corporate employees which usually are not so generally available to those who operate a business, be it a farm or otherwise, on his own behalf.

Secondly, there is another provision of the Internal Revenue Code which permits an employee to exclude from his income lodging and meals which he must take as a condition of his employment and which are for the benefit of his employer. A farmer who is operating his own farm has his house and uses his farm products and he gets no tax benefit from that. However, by incorporating, the corporation may be able deduct the cost of maintaining the house, the cost of growing the crops, and the farmer who is not a corporate employee may be able to exclude from his own income the rental benefit of the home, and the farm products which he may consume on his own behalf.

I have nothing more at this time.

Senator STEVENSON. Did I understand you to say that the regulations of the Treasury Department treated crops differently? That is to say, in some cases the costs of production of crops could be deducted but in other cases has to be capitalized? You mentioned citrus and almonds at one point. What basis is there for differentiating in the tax treatment according to the nature of the product, if I understood you correctly?

Mr. DAVENPORT. Prior to 1969 citrus and almonds also qualified for this treatment. In 1969 the Tax Reform Act required that the cost of raising citrus trees be capitalized during the first four years of the life of the citrus tree. In 1970 the same law was extended to almonds.

Senator STEVENSON. But not to walnuts?

Mr. DAVENPORT. Not to walnuts; to pistachios, Kiwi fruit, peaches, grapes.

Senator STEVENSON. Why is that? Is this an administrative decision?

Mr. DAVENPORT. No; this was actually written into the statute and now appears as section 278 of the Internal Revenue Code. My understanding with respect to the citrus was that Minute Maid, which, I believe, is a subsidiary of Coca-Cola, at one point had plans to plant a couple of hundred thousand acres of new citrus in Florida, and beginning in the middle 1960's there was a drive by some Florida Congressmen, namely, Representatives Haley and Herlong, to require that the cost of citrus trees be capitalized, and, while they introduced this bill a number of times during the 1960's, it wasn't until we had general tax reform in 1969 that they were successful in getting it written into the code.

It is obviously piecemeal legislation. The consequence has been, as you look at the syndication offerings, that most of the citrus syndications are phasing out. They are at least in my own familiarity. There were not huge numbers of almond syndications, although there were some.

Senator STEVENSON. Is this piecemeal approach in any way the result of a calculated effort in the Congress to encourage the cultivation of pistachios and walnuts as opposed to almonds?

Mr. DAVENPORT. It doesn't appear in the testimony of the committee reports. The Kiwi fruit, which is the newest gimmick, if you will, that I have run into, now sells at approximately $1.80 a pound on the Los Angeles market. Where I am, I have been unable to buy any. There is a question in my mind about whether or not the Federal treasury should be subsidizing a product selling at that price.

Senator STEVENSON. Where are Kiwi fruits grown?

Mr. DAVENPORT. Chico, Calif.

Senator **Stevenson**. Or should I ask in whose congressional district?

Mr. **Davenport**. Chico, Calif. There is an agricultural substation up there that has developed the Kiwi fruit plant and there are some syndicators who are not very active at the moment, but who do have some syndication material out indicating that Kiwi fruits have great market potential as well as the tax shelter.

Senator **Stevenson**. How are apple trees treated? We have some apple trees in Illinois. I am afraid we don't have any Kiwi fruits or pistachio nuts.

Mr. **Davenport**. Apple trees would lend themselves to the same technique. The cost after planting may be written off until such time as they bear, and I think one reason that maybe apple trees haven't been syndicated is that, I believe, and some agricultural expert could correct me on this, California has never been a large producer of apples. It produces some, and the truth of the matter is on a lot of these agricultural syndications California has led the nation. The consequence has been because apples haven't responded as well, I think, agriculturally, so there has been less syndication of them.

Senator **Stevenson**. Could you tell us anything about the incidence of property taxation and its effects on agriculture?

Mr. **Davenport**. I am really beyond my field on this some. I have done a little bit of work with the Williamson Act, which was discussed earlier. The Williamson Act, if I am not mistaken, really takes pretty largely the income from farm land and establishes a value by capitalizing the income from it. In the usual case, the capitalized value of the farm land is less than the market value. The assessment under the Williamson Act is made on the basis of the capitalized value rather than the market value. The consequence has been a shifting of taxes, property taxes, from agriculture to urban areas and other kinds of land.

Let me say also the Williamson Act was sold in large part on the ground that it would conserve open spaces in and near the cities because, by reducing property taxes, it would not then be necessary for farms to go out of business and they could stay in business in and around cities.

The history under the Williamson Act, I believe, would show that the longer it is in operation the farther out from the cities and towns lies land which is taking advantage of this benefit. It requires a conscious decision by the local governing board to enter into this kind of an arrangement. That in most counties has not presented any substantial difficulties.

Senator **Stevenson**. Do you think that the preferential treatment for unearned income, namely, capital gains, as opposed to earned income, is one of the reasons for the corporate invasion of rural America? Isn't there a great incentive to the corporation to retain earnings instead of paying them out in the form of dividends which get taxed to their shareholders at ordinary income tax rates? Consequently, don't corporations tend to split their stock and declare stock dividends, accumulate earnings, and then, of course, with the provisions against unreasonable accumulations, seek means of investing those accumulated earnings? Is that one of the reasons for the growth of conglomerates and their adventures in agriculture?

Mr. DAVENPORT. I think the thing that perhaps causes conglomerates to want to get into agriculture more than any other reason is the ability to write off the investment, a large part of the investment, to reduce taxable income in that year, while really creating an asset that will have substantial value. As to the capital gain aspect and corporations, and I am surely speculating, it is my belief that conglomerates that get into the farming are not looking for the capital gains on the sale nearly as much as are the individuals that get into the syndication. Indeed, some of the larger corporations that have gone into farming I think, tend to stay in it for a longer period of time, which would mean the play they are making is on the premature deduction of costs which in a sense can reduce the income earned by these agricultural investments really to a zero tax rate. If they then can sell capital gains, they will go on and get the socalled negative benefit. I would hazard the guess that conglomerates are interested more in the premature deduction aspect of it.

Senator STEVENSON. Do the estate and inheritance taxes work to the disadvantage of the individual landowner? When he dies the value of his land is subject to estate and inheritance taxes; but the corporation doesn't die.

Mr. DAVENPORT. That is true. Of course the corporate shares held by a taxpayer would be subjected to estate and inheritance taxes. Over the years there have been a lot of farm groups that have made presentations to the Treasury on the ground that the inheritance and the estate taxes were requiring the breakup of a lot of farms.

Let me say I don't think they ever made a very convincing case on that and, secondly, there are provisions of the Internal Revenue Code which permit the estate tax to be spread out over a long period of time and, indeed, they could be spread out for, in some circumstances, at least 10 years, with an interest rate of 4 percent accruing on the unpaid taxes, and that is really a very favorable interest rate even in today's money market.

Senator STEVENSON. I probably addressed you improperly. Is it Professor Davenport?

Mr. DAVENPORT. That is quite OK. I was a mister before I was a professor for quite some time.

Senator STEVENSON. I was a mister not long ago myself.

Thank you, Professor Davenport, for being very helpful to us this afternoon.

Mr. DAVENPORT. Thank you.

(The prepared statement of Mr. Davenport follows:)

Statement of Charles Davenport
on Farm Tax Losses

Acting Professor of Law
University of California, Davis

Before the Migratory Labor Subcommittee
of the Senate Committee on Labor and Public Welfare

January 11, 1972

My name is Charles Davenport. I teach Federal income tax law at the School of Law, University of California at Davis, California. I appear before this Subcommittee solely in my own capacity, not representing any firm or organization, as a citizen with a special knowledge of taxation. I have had considerable experience in the taxation of farm investments. From 1960 to 1967 I practiced in San Francisco with a firm that represented farm investors and operators. From 1964 to 1967, I was a member, vice-chairman, and chairman of the Committee on Agriculture of the Tax Section of the American Bar Association. From May, 1967 to August, 1969, I worked in the office of Tax Legislative Counsel in the Department of Treasury. While I was with the Treasury Department, I participated in the consideration of many, and in the development of two, proposals concerning the farm tax loss problem.

STATEMENT OF THE PROBLEM
AND PRE-1969 LAW

I will state the farm tax loss problem in terms of the tax law as it existed before the 1969 Tax Reform Act.

Premature Deductions

The farm tax loss problem has been much discussed and written about. Its roots lie in administrative dispensations to "farmers", nearly as old as the Internal Revenue Code itself.

In the tax law, there is the concept of "capital expenditures." In general, a capital expenditure is the cost of an income producing asset which is going to be used by the taxpayer for more than a year. Most taxpayers are not permitted to deduct the costs of such assets when incurred. Rather, if the taxpayer can show that the asset has a limited useful life, i.e., that the asset will exhaust or be used up over a period of time, then the cost of the asset can be amortized or depreciated over that period. In other words, the cost is deducted ratably as the asset is used in the taxpayer's business.

This prohibition against full deduction of the cost of an asset in the year of acquisition has not been applied to some farm investments. Under the Treasury decisions made in 1915 and 1919, farmers are permitted to deduct as incurred capital costs associated with growing animals and with growing plants such as trees and vineyards which produce an annual crop each year. In the latter case, the cost of putting the plant in the ground must be capitalized, but all costs incurred thereafter may be deducted as incurred even though the plant will not produce any fruit or nuts for some long period of time. In any other business, comparable costs would have to be capitalized, but "farmers" may deduct these costs.

The tax consequences of these rules need to be spelled out. We can do that by reference to a simple example. Suppose that I invest $100 in cultural practices associated with an orchard. Since this $100 is a deductible expense, and since the orchard is not producing any income, I will have a "farm tax loss" of $100 for the year. This "farm tax loss" may be deducted against income earned in some other endeavor. If I am in the 70% tax bracket, my deduction of this loss against income earned in, say, the practice of the law, will reduce by $70 my taxes on law firm income. In other words, 70% of the dollars which I have used to raise the orchard, will be refunded to me by the Federal Government at the end of the year. Effectively, this reduces my investment in the orchard to $30. If I had not had any income from the practice of the law or some other such endeavor, the farm tax loss which I created by investing in the orchard would be of no use to me. Or if I had had other income which was taxed at a much lower rate, the amount returned to me by the Federal Government would have been a lower amount with the result that my continuing investment in the orchard would be a higher amount. Professor E. Cary Brown demonstrated some years ago that the economic effect of allowance as a deduction in the year of acquisition all the costs of acquiring assets has the effect of exempting from tax the income from the remaining investment. This is a zero tax rate.

Capital Gain

This zero tax rate may look good, but a shrewd investor may want to do better. He may want a negative tax benefit, (*i.e.*, tax benefits which exceed tax burdens). How does this come about? Suppose I sell my orchard in which I have invested $100. If I make the sale at my cost, $100, and if I can report that sale as long term capital gain, I need only include $50 in my income in the year of sale. Let us assume that this amount will be subject to a 70% tax rate. My taxes on the sale will be $35. (Before the 1969 Act, the maximum tax would have been $25.)

Notice that I have my $100 back. In addition I have saved $70 in taxes when I made the investment giving me a total of $170. That total must be reduced by the $35 in taxes I paid on sale of the asset, leaving me with $135. The consequence is that in an investment which just broke even economically, I am ahead by $35 because my taxes otherwise payable to the Federal government have been reduced by that amount. This is just like a payment from the Federal government. These benefits are available to one who makes an economic profit, and they are also available to one who makes an economic loss. In the latter case, these tax benefits may be greater than the economic loss so that when combined there is a net profit.

Let me add that despite some arguments to the contrary, none of this seems to have been a deliberate policy on the part of Congress to subsidize farmers. That argument seems impossible in the light of the fact that the subsidy aspect rests in large part on administrative actions taken by the Treasury Department in 1915 and 1919, and prior to 1971 I had never heard the Treasury Department argue that it was empowered to dispense subsidies. The capital gain aspect, which is the frosting on the cake, wasadded in 1942 and in 1951 without any specific legislative history indicating that the Congress understood the subsidy resulting from the interaction of the deduction of premature capital cost and capital gain. I think that the 1915 and 1919 decisions rest upon an assumption that farming was really a way of life and not a business. Incidentally, the Supreme Court has questioned the legitimacy of these decisions.

The revenue losses from these provisions are estimated at more than $800 million annually.

THE 1969 ACT

Such was the law as it existed prior to the enactment of the Tax Reform Act of 1969. That legislation had a number of provisions which bear on the above. They are complex in the extreme. They may be briefly summarized as: (1) the establishment of an Excess Deductions Account (EDA) to recapture farm losses used to offset nonfarm income when farm property is sold, (2) the recapture of soil and water conservation expenditures upon sale or disposition of land, (3) recapture of excess livestock depreciation, (4) extension of the holding period for livestock to qualify for capital gains treatment, (5) prohibition of the tax-free exchange of livestock of different sexes, (6) capitalization of the planting and development costs for citrus groves, and (7) tightening of hobby loss rules.

The major provision was the excess deductions account which was designed to deny the negative tax benefit resulting from the long term capital gain provisions. EDA requires a taxpayer to enter an amount in EDA if his "nonfarm" income is more than $50,000. The amount entered is so much of the "farm loss" as exceeds $25,000. On subsequent sales of farm assets, that would otherwise be treated as capital gain, the proceeds of sale must be reported as ordinary income to the extent of the amount of a taxpayer's EDA. Three features should be noted: (1) EDA is not activated unless there is a sale of assets; (2) EDA does nothing to disallow the premature deductions of capital costs; and (3) EDA operates on only the farm loss in excess of $25,000 and then only if the taxpayer has non farm income of $50,000.

With all the complexity generated by EDA, with all the other changes made in 1969, and except for the change which requires the capitalization of citrus development costs, which was expanded to include almonds in 1970, the tax shelter created by investing in farm assets was not significantly affected. At most, it was only altered somewhat. Some have argued that the most flagrant abuses have been eliminated, but there is no evidence supporting that argument.

The ineffectiveness of the legislation is readily apparent when one looks at revenue expected to be generated by the 1969 changes, about $20 million -- about one-fortieth of the revenue loss attributable to farm tax losses.

EFFECTS ON AGRICULTURE

One need not be a theoretical economist to generalize about the effect of the tax subsidy. One need only be an empiricist ready to report his observations.

We noted above that the subsidy aspect of the tax rules is available only to those who have a large source of income against which the farm tax loss can be deducted. We also noted that the higher the tax bracket, the greater the value of that tax loss. One would suspect then, that this tax shelter, as it is affectionately called by its salesmen, would attract a lot of very high bracket income in out of the cold wet weather of the Internal Revenue Code. Since small and intermediate size farmers normally do not have these other sources of income, they are unable to make use of these subsidies There are, however, at least two kinds of taxpayers who have income which may be sheltered by the use of the farm loss. These are corporations engaged in other profitable businesses with a marginal tax rate of approximately 48%. In addition, there are a number of individual taxpayers in the higher brackets with tax rates ranging all the way up to 70%.

Kinds of Investors

It appears to me that the corporate farmer is usually a conglomerate. A conglomerate would not, I think, be attracted if it did not think the economic climate were favorable. But the favorable economic climate is enhanced by the ability to write off a substantial amount of the capital investment and thereby recover approximately 50% of the capital costs by deducting them from other taxable income. It is my belief that most such corporate investors are not necessarily making the farm investment for a fast turnover. Instead, by minimizing the capital investment through the writeoff of the capital costs against other income, the economic returns in the farming business are substantially enhanced, and unfairly so over the farmer who has no or little income other than that produced by the farm.

The second group of investors are those investing through syndications which are now numerous. In these cases, a group of promoters will usually combine with persons who have some farm expertise and/or persons who control some expanse of land. Funds for development are raised through the sale of limited partnership interests to numerous investors from Wall Street and Montgomery Street. The "equity" in these cases lies with these investors who are told that they can write off 50, 150, 200, maybe even 300 percent of their capital investment in the year of investment. By so doing, they are left with little or nothing in the enterprise but continue to receive the tax benefits attributable to "equity." I suspect that most of the investors in this kind of vehicle anticipate a sale at capital gains rates within a relatively short period of time - from one to seven or eight years, before the realization of any substantial ordinary income from their investment.

Unfair Competition

The common thread between these investors is the large sources of ordinary income which would otherwise be taxed at a very high rate. The purchase of farm assets becomes a "tax" loss which reduces taxes on other income, and the investors recover a large part of the cost of the farm asset. This is what attracts them. Since a good part of their returns are the tax subsidy, they can survive on a lesser economic margin than others who do not have these sources of income against which to deduct their farm capital investments. The consequence is the weakening of those who are dependent upon agriculture for their livelihood because of the unfair competition resulting from the tax subsidy. Those who can garner the tax subsidy do not have to rely only on the land to produce an acceptable return. Rather, they combine the benefits produced from the land with the tax subsidy. Together, these will make up at least an economic profit. The subsidy thus will have the effect of driving out those persons who must rely only upon the product of the land.

Overproduction

There appears to be at least one other consequence: Overproduction of products which yield the tax subsidy. Citrus and almonds demonstrate this phenomena. In both cases, persons who had a vested interest in the citrus or almond industry have prevailed upon Congress to change the law with respect to their very narrow problem.

Absentee Ownership

There is also another consequence. The capital which is involved in these cases is absentee capital. Whether absentee ownership is a good thing for the farming community or not is really beyond the scope of my expertise. There are indications, however, that absentee ownership does not necessarily produce a healthful economy.

Absentee ownership also has another side to it. Management does not have its own capital at risk in such cases. The consequence is that we have managers whose decisions affect their investors' profitability. Such decisions are likely to reflect a higher degree of objectivity than would be the case if the managers own capital were involved. Some of the social consciousness that one might expect in the employment of capital is likely to disappear when management does not have a capital interest and is making a decision for an absentee owner.

Large Scale Ownership

Such ownership is also large scale ownership because large amounts of capital may be easily aggregated. The consequence of large scale ownership as compared to small scale ownership has been the source of at least one excellent study made by Dr. Walter R. Goldschmidt, Assistant Professor of Anthropology and Sociology at the University of California, Los Angeles. He made his study in 1946 as a report of the Special Committee to Study Problems of American Small Business. This report was reproduced in 1968 by the Subcommittee on Monopoly of the Select Committee on Small Business in its hearings on Corporation Farming. Generally, he found that where agricultural wealth was not concentrated, more people were able to live at a higher standard of living with better physical facilities, schools, parks, recreation areas, newspapers, and churches.

CONCLUSION

The attraction of outside capital to certain selected areas of agriculture highlights a trend which can be meaningfully expressed as a transformation of farming from a way of life to an absentee business. Once absentee farming capital is in the hands of business managers, many of the premises on which our concept of farming has been built disappears. The extension of many benefits to "farmers" and the exemption of "farmers" from many burdens seem inappropriate in these circumstances. Can a conglomerate realistically complain about excessive bookkeeping costs and centralization of economic power in the hands of unions? There is of course a question whether migratory labor can be effectively unionized and whether unionizing migratory labor is the proper means of handling the concentration of power which results from the continued influx of outside capital into farming by the use of tax incentives.

In conclusion, the Federal tax laws, even following the "reform" of 1969, are built on the assumption that farming is the American way of life. That assumption is not valid where corporations and large syndications are involved. Farming is now in the hands of business managers and operated by them for the benefit of absentee owners.

Furthermore the tax benefits available to these business farmers foster two inequitable advantages: (1) Those farm taxpayers that have no other income are at a substantial disadvantage to those who have large outside income. (2) There is a substantial unfair tax advantage as between those who have farm investments and those who do not. In the first case, the advantage is an unfair competitive advantage which permits the tax farmer to obtain higher profits on lower prices. The tax farmer thus is in the position to drive out the farmer who regards farming as a way of life rather than as a business. The second advantage lies in the preference of persons making farming investments as compared to those who do not desire to make farm investments. Those making farm investments have a preferential rate of tax which not only shields the farm income from tax but helps to shelter their income from other sources. This is unfair.

There are many ways by which this problem could be handled, and Congress should do so to remove the unfair competitive advantage given the tax farmer over others. By so doing, it could perhaps discourage the trend toward large absentee ownership of farms.

Senator STEVENSON. Our next witness is Dr. Michael Perelman of Chico State College.

STATEMENT OF DR. MICHAEL PERELMAN, CHICO STATE COLLEGE, CALIF.

Dr. PERELMAN. My name is Michael Perelman and I reside in Chico, Calif.

Much of what we are going to talk about now has been covered before by different people and by bits and pieces, so I am going to submit a paper for the record which is what I originally intended to say.

Senator STEVENSON. They will be entered in the record.

Dr. PERELMAN. I will begin by quoting part of the Agricultural Act of 1961:

> It is hereby declared to be the policy of Congress to:
>
> * * * Recognize the importance of the family farm as an efficient unit of production* * *

On the streets it would be called schuck; in more polite company we might call it reverential rhetoric. But the farms we really admire are the large farms.

I quote for you from the introduction to the USDA's "Yearbook of Agriculture, 1970." Clifford Hardin, Secretary of Agriculture says:

> Using a modern feeding system for broilers, one man can take care of 60,000 to 75,000 chickens. One man in a modern feedlot can now take care of 5,000 head of cattle. One man, with a mechanized system, can operate a dairy enterprise of 50 to 60 milk cows.
>
> Agriculture, in short, does an amazingly efficient job of producing food.

Hardin is correct that very few people do work on farms today, but I question that agriculture does such an amazingly efficient job of producing food. The reason is there are so few people on the farm that the farm requires large amounts of non-farm inputs. The farms of today are supported by many people who have never set foot on a farm; they work in the factories, they work in the cities.

Besides that, the farm requires large amounts of raw materials. We will spend more time with that later.

For instance, if we were to take horses to get all the horsepower that we use on the farm today, if we were to get this from horses, we would require from 20 to 50 times as much cropland as we have today just to feed these horses. The fact we can feed our machines on oil instead of hay is the most important technological advance. We will talk a little bit more about this technology in a few seconds, about the shortage of energy, what this means for agriculture in the future.

The question we have to look at is what, indeed, does constitute efficiency? The usual criteria is profitability. I quote to you now from Simon Askin, Tenneco's Executive Vice President for Agriculture and Land Development—notice how Tenneco puts the two together—Agriculture and Land Development.

> We consider land as an inventory, but we are all for growing things on it while we wait for price appreciation for development. Agriculture pays the taxes plus a little.

California land values have tripled since 1950. They are now falling a bit because the speculators have overreached themselves. The reason the speculators wanted this land, it was a ticket for subsidies; it was a ticket for capital gains; it was a ticket for other benefits accruing to them, benefits that have to do with the price-earnings ratio of agricultural holdings, relative to the price-earnings ratios of an industrial stock. So profits are a fuzzy measure and they depend as much on tax accountants who publish the loopholes and lawyers who reap the subsidies as they do on the man who is out there in the field.

One study by the legislative reference service questioned that farms with sales over $40,000 per year could actually exist profitably in the absence of farm subsidies.

Earlier we heard from Mr. Long from the Bank of America who was talking about how small agricultural firms can have credit. One of the main advantages which adds to the preferential treatment of agriculture is that they do get credit as well as cheaper prices on other inputs. I have submitted some figures on this in one of my papers that I am submitting.

Here is the president of John Deere tractor sales:

> To us credit is a sales tool. We provide it because we must. * * * The paper we accept from dealers carries higher rates than the banks charge for such paper and our rates are as low as any in the industry. * * * Surely the limited availability of credit from other lower cost sources must be a factor in the situation.
>
> We do not attract this business by taking excessive risks. Our credit standards have been high * * * (and) our losses have been minor.

That is, if the Bank of America had been doing what they say they have been doing, John Deere would not have gone into the credit business. Later we will see, when we talk about Tenneco, that part of the reason—well, we will get into credit there.

Another advantage of large farms which nobody has mentioned thus far is that they guarantee a market for suppliers of farm inputs. This enters into the profitability.

I would like to quote now from Peter Grace who is the head of W. R. Grace, which is a large chemical corporation. This was written in 1967. He said:

> * * * U.S. nitrogen plants are operating at only 78 percent of operating capacity in 1968.

Then he continues:

> Most firms supplying petroleum products and ag chemicals are being forced by the competition to offer credit (like John Deere & Co.). They would prefer not to do this, especially with today's high cost of money.

Apparently I can add that the Bank of America also preferred not to do it.

> During the struggle for control of Kern County Land Company last summer—

this was written in 1967—

> more than one fertilizer firm was interested in acquisition, from the standpoint of guaranteeing an outlet for a large amount of their products on the company's huge irrigated crop acreage.

The large corporations can use the farms they buy to set up an integrated firm so they can guarantee an outlet for their products, especially when they have a glut of the agricultural inputs they market. So I venture to say that profitability is not a very good measure of what is efficient and what is inefficient in agriculture. I submit to you that we can use a much more common-sense measure of efficiency.

Today we read in the paper about population threat, when we read about running out of many natural resources. We then should be looking toward agricultural technology capable of coping with large population and capable of economizing on our natural resources.

I quote to you from K. F. L. Mather who wrote a book in 1944, that is 25 years ago. Mather says:

> A hundred years ago nearly 80 per cent of all things men used were derived from the plant and animal kingdom with only 20 percent from the mineral kingdom. Today only about 30 per cent of the things we use in industrialized countries come from things that grow. About 70 per cent have their origins in mines.

That is the main source, I submit, of agricultural efficiency, that we are using nonagricultural inputs and we are not paying a very high price for them.

Let's take one example, energy. Americans use about 18 billion horsepower of energy. One man, Fred Cottrell, compared a Japanese farm and an American rice farm. His book was written in 1956, and the studies he used were done somewhat earlier, so what I am going to tell you is even more extreme today than it was when Cottrell wrote it, in spite of the fact that the Japanese are industrializing their agriculture. In Japan 1 acre was harvested with only 90 man-days of work, equivalent to 90 horsepower of work. Then Cottrell looked at the studies of an Arkansas rice farm, it took more than 1,000 horsepower just to run a tractor and truck. Consumption of electrical energy on the Arkansas rice farm exceeded 600 horsepower hours. He did not even bother to ask about the energy used to produce the tractor and truck and other capital equipment.

We are running into a problem with energy. The whole Alaska find, which is so highly touted according to the oil and gas journal, will probably provide us with enough petroleum to supply our needs for less than 1,000 days. That is less than 3 years.

Farms, so-called efficient large-scale farms, consume more than 1 calory of fossil fuel for each calory of food they produce. That is not an efficient operation.

We pride ourselves in a technology which boasts about how few men it employs. Just think of Hardin bragging about how one man can feed 75,000 chickens. I suggest to you that we will do far better to think about a technology which could use labor and use it constructively; that does not mean to employ bracercs or farm laborers at a less than living wage. If you look at the statistics, a very, very small part of our total food price goes to farm labor.

Our population explosion also means we need more and more food. A small farmer can, in fact, produce more per acre than a large farmer. For instance, I found it surprising, when I learned that Mississippi, unindustrialized Mississippi, backward Mississippi, not very technologically advanced Mississippi, produces less dollars worth of food per acre than does highly mechanized Iowa.

Now I would like to spend the last minute or so reading to you out of background, Senator Stevenson, on what I have learned from looking at the history of corn in our country, and I think it has something to suggest about the way our agriculture is going.

> American soils have been almost legendary for their fertility. One commentator was only slightly exaggerating when he said, that our soils are so rich that "if you tickle them with a hoe, they laugh with a harvest". We were so mindless about protecting this fertility that we have spent much more effort worrying about farm soils themselves. Part of our carelessness was understandable; we seemed to have a boundless supply of land and so long as there was new land to put under cultivation, the effects of soil depletion would be less striking.

This might be of interest to you Senator Stevenson:

> Between 1870 and 1920 corn yields remained constant, but about two-thirds of the increased acreage was located in eight cornbelt states where the mean yield was 20 per cent higher than the United States average. Then between 1902 and 1925, yields were able to increase slightly, but this increase in yield was made possible because less fertile land, like that found in Texas and Oklahoma, was taken out of production. Soon after the beginning of the 1920's yields began to fall and, although acreage remained constant until the early 1930's, production began a downward trend. Then from the 1937 low, yields rose to a 74 per cent above the 90-year mean for the period 1870 to 1960. One part of the explanation is that production was discontinued on more than 17 per cent of the 1937 acreage in the relatively low yielding southern states. This land was probably taken out of production because the soil was too depleted to continue further cultivation of the corn.

Another reason for the rising yields of the late 1930's was the introduction of high yielding hybrid corn. The more extensive roots system and aggressive feeding characteristics of the hybrids, enabled them, when first introduced, to extract fertility which was inaccessible to open-polenated varieties. That is, hybrid corn sped up the rate of soil depletion.

But there was another reason why the hybrid corn produced more. The increased yields were bought at a cost of lower protein content.

You asked, Senator, about the quality of our foods. In fact, the agronomists refer to what they call the inverse nitrogen law which says that the more nitrogen we find in a crop the less we can expect its yield to be. And similarly the higher the yield the less percentage of nitrogen we can expect to find. Nitrogen is found in all proteins and may be taken a rough proxy for the protein level of the corn. For example, low yielding Indian corn has shown a protein content of from 12 to 15 percent. Over the years we selected those seeds which produced more until the protein content fell substantially. But even before the advent of hybrid corn it was still possible to raise hogs on an exclusive diet of corn.

Then in-between 1937 and 1947 the average protein content of corn fell by more than 10 percent. At first livestockmen complained about the value of hybrid corn as a feed, but we don't hear much about that anymore, because feed today is supplemented by heavy doses of fish protein.

We import enough fish protein to wipe out half of the protein deficit in Latin America. That is where our fish comes from. That is why we grow so many chickens, so many hogs, because people in Latin America are starving.

Our technology is not efficient; it will never be efficient until we learn to take account of people, until we learn to think in other terms than profit. Hopefully that day will come soon.

Thank you.

Senator STEVENSON. Thank you, Dr. Perelman.

It is getting late and we will have to push on.

I was just going to say that if Clifford Hardin can boast about one man taking care of 75,000 chickens, it boggles the mind to imagine what Earl Butz will be boasting about.

And, although I will not at this point ask the questions that I have in mind, I want you to know how grateful we are for your effort to document the efficiency of the small farm unit compared to the large units of giant corporations and conglomerates.

(The prepared statement of Mr. Perelman follows:)

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EFFICIENCY AND AGRICULTURE

By

Michael Perelman

> A cynic might even assert that the family farm is an institution which functions to entice farm families to supply batches of labor and capital at substandard rates of return in order to supply the general economy with agricultural products at bargain prices.
>
> Glenn L. Johnson

Economics Department
Chico State College
Chico, California

In the spirit of Jeffersonian democracy we have always paid lip service to the family farm. For instance, we can read in the Agriculture Act of 1961 that "It is hereby declared to be the policy of congress to: ...recognize the importance of the family farm as an efficient unit of production and as an economic base for towns and cities in rural areas to encourage, promote, and strengthen this form of farm enterprise."

But we are much more willing to praise the small farmer than to help him; moreover small scale farming is not even praised; the farms we really admire are the large, capital intensive operations. Clifford Harden reflects this basic attitude when he writes:

> Using a modern feeding system for broilers, one man can take care of 60,000 to 75,000 chickens. One man in a modern feedlot can now take care of 5,000 head of cattle. One man, with a mechanized system, can operate a dairy enterprise of 50 to 60 milk cows.
>
> Agriculture in short, does an amazingly efficient job of producing food.[1]

If we measure efficiency by output per farm worker, then we must agree with Secretary Hardin's analysis; and in that case, we should clear the land of the inefficient small farmer to make way for the large modern farms which are capable of using the newest technology.

On the other hand, should we measure efficiency by output per manhour? One United States Department of

Agriculture Yearbook cites Solomon Fabricant, who addresses himself to this question; he writes:

> As a general rule...it is better not to limit productivity indixes that purport to measure change in efficiency to a comparison of output with a single resource. The broader the coverage of resources, generally, the better is the productivity measure. The best measure is one that compares output with the combined use of all resources.[2]

After all, no man alive can really feed 75,000 chickens by himself. In reality he is aided by many other men who have made the cages and grown the feed. But we don't see these other men at the broiler factory; in fact, some of them might have never set foot on a farm. Yet they are farmers nonetheless, for without their production of the capital and other inputs, the modern farm would wither away. For instance, estimates by men in the Department of Agriculture indicate that five million persons worked in the industries which supply farmers. By 1954 their numbers increased to six million. Assuming a 40 hour week, these "workers spent from 10 to 11 billion hours in producing goods and services purchased and used by farmers in 1947-1954. At the same time, work on the farms took 17 billion to 13 billion hours."[3] Industries which supply farmers still employ about 6 million workers according to the 1967 Census of Manufacturers, but by 1967 the number of workers employed directly in agriculture had fallen by 3.7 million from the 1954 level of 8.6 million farm workers. Thus, work done off the farm continues to become more and more important relative to work done on the farm.[4]

TABLE I

EXPENSES: FARM PRODUCTION EXPENSES, UNITED STATES, 1954–69[1]

Year	Feed Livestock and Seed[2] Purchased	Fertilizer and Lime	Capital Equipment: Repairs Operation[3], Depreciation and Other Capital Consumption:[4]	Hired Labor[5]	Taxes on Farm Property[6]	Interest on Farm Mortgage Debt[7]	Net Rent to Non-Farm Landlords	Miscellaneous[8]	Total production expenses
	Mil $	Mil $	Mil $	Mil $	Mil $	Mil $	Mil $	Mil $	Mil $
1955	5,995	1,185	7,300	2,615	1,141	402	1,057	2,204	21,889
1960	7,935	1,315	8,210	2,923	1,502	628	1,010	2,829	26,352
1965	9,299	1,754	9,055	2,849	1,943	1,077	1,328	3,628	30,933
1966	10,448	1,952	9,508	2,889	2,108	1,205	1,442	3,854	33,406
1967	10,541	2,124	10,241	2,878	2,275	1,343	1,305	4,068	34,775
1968	10,338	2,125	10,851	3,045	2,526	1,477	1,308	4,342	36,012
1969	11,505	2,013	11,500	3,192	2,753	1,602	1,303	4,576	38,444

Source: Agricultural Statistics, 1970.

[1] Includes Alaska and Hawaii, beginning 1960.

[2] Includes bulbs, plants, and trees.

[3] Includes expenditures for repairs and maintenance of farm buildings and other land improvements, petroleum fuel and oil, other motor vehicle operation, and repairs on other machinery.

[4] Estimated outlay necessary at current prices, for the replacement of capital equipment that has been used up during the year.

[5] Includes cash wages, perquisites, and Social Security taxes paid by employers.

[6] Includes taxes levied against farm real estate and farm personal property.

[7] Interest charges payable during the calendar year on outstanding farm-mortgage debt.

[8] Includes interest on non-real-estate debt, pesticides, ginning, electricity and telephone (business share), livestock marketing charges (excluding feed and transportation), containers, milk hauling, irrigation, grazing, binding materials, tolls for sirup, horses and mules, harness and saddlery, blacksmithing, and hardware, veterinary services and medicines, net insurance premiums (crop, fire, wind, and hail), and miscellaneous dairy, nursery, greenhouse, apiary, and other supplies.

Table I gives us some idea of the importance of non-farm inputs to agriculture. The table lists the total farm production expenses between 1954 and 1969. These expenses are broken down into different categories and the total value of farm marketings is also given for a comparison. Notice that the cost of capital represents between 1/3 and 1/4 of all expenses. More than 10% of the total costs go to the category labeled "Miscellaneous" expenditures. These "Miscellaneous" expenditures as well as the capital on the farm replace labor; as a result, hired labor represents less than 10% of the total farm costs. However, the important question we must not ask how little labor we can use on the farm, but rather does society benefit from the replacement of farm labor by capital? Is it profitable to make such a replacement? Indeed, modern, large scale agriculture does appear profitable. Otherwise major corporations would not be investing in these farms. However, this profitability owes a great deal to tax accountants and attorneys. Through their expertise, non-farm businesses and wealthy individuals can "farm." They can raise cattle or develop an orchard. These operations will not turn a profit until the cattle or the trees reach maturity, and so long as they do not produce any profit the owner can write off these expenses from his non-farm income. And just when they are mature the owner can sell out at a profit, and declare a capital gain so that he is taxed at a lower rate. The government has long been aware of the danger to the small farmer of these tax loopholes. In 1963, Secretary of the

Treasury Douglas Dillon told the House Ways and Means Committee that the tax farmers "create unfair competition for farmers who may be competitors and who do not pay costs and expenses out of tax dollars but who must make an economic profit in order to carry on their farming activities."[5]

Secondly, farm subsidies favor the largest corporations. Payments are roughly proportional to farm sales, so that the large farms naturally get more than the small ones. Moreover, "both price support and direct payment benefits of the farm commodity programs are more highly concentrated among the large farmers than is income itself."[6]

One study by the Legislative Reference Service of the Library of Congress concluded that the large farms with over forty thousand dollars sales per farm would face greater financial difficulties if price supports had been discontinued. Costs on the average would have exceeded receipts for these large operations.[7]

To some extent the subsidies, especially the acreage limitation programs, are at least partially self defeating. The government cuts back the amount of land in cultivation to limit the harvest so the market price of farm produce will be raised. Moreover the more successful the government is in maintaining high prices the more incentive the farmer has to raise his yields. High yields are good, except that the farmer has to raise his yields. High yields are good, except that the farmer of today takes a shortcut to high yields; namely lots of ecologically damaging fertilizer and biocides, and the small farmer uses less of these chemicals per acre than the large farmer.[8]

A third advantage of the large farm is its ability to purchase inputs cheaper. Table II shows the relationship between farm size and the costs of capital and other inputs. Part of the profitability of large farms rests upon their ability to buy inputs cheaper, showing how profitability can have nothing to do with efficiency.

One of the most crucial inputs for a farmer is credit and the small farmer has difficulty in getting it reasonably. Industrialists who sell to the small farmer are aware of these difficulties. Listen to what the president of John Deere and Company had to say about the availability of credit to the small farmer:

> To us credit is a sales tool. We provide it because we must (because banks do not)...The paper we accept from our dealers carry higher rates than the banks charge for such paper and our rates are as low as any in the industry. Even so the amount of retail paper our company had on its hands last October 31 (1957), the end of our fiscal year, approximated one hundred million dollars, two hundred percent more than three years ago. Surely the limited availability of credit from other lower cost sources must be a factor in the situation.
>
> We do not attract this business by taking excessive risks. Our credit standards have been high... (and) our losses have been minor.[9]

You might think that Mr. Hewitt was just complaining, because he too, like the banks, preferred not to lend any money to the inefficient small farmer. But Don Paarlberg, the current Director of Agricultural Economics for the United States Department of Agriculture and colleague of Earl Butz

TABLE II

RELATIONSHIP BETWEEN FARM SIZE AND COST OF CAPITAL AND OTHER PURCHASED INPUTS

Farm Size (acres)	Interest on Operating Capital (6% norm)	Volume Discounts Fertilizers	Insecticides	Crop Dusting & Areal Spraying	Total difference from Base Cost per Acre.
80	6.88%	0%	0%	0%	$ 0.56
160	6.52%	4%	0%	0%	-.25
320	6.47%	4%	5%	0%	-.53
640	6.47%	4%	5%	12.5%	-1.27
1,280	6.15%	10%	8.5%	17.5%	-3.96
3,200	5.90%	10%	14%*	25%	-6.62

*Denotes only one observation behind the data.

Source: J. E. Paris, and D. L. Armstrong, Economies Associated with Farm Size, Kern County Cash Crop Farms, Giannini Foundation Research Report No. 269, 1963, pp. 73-96.

at Purdue, says "We know from our studies in the Department of Agriculture that the rates of foreclosure and delinquency are greater on big farm loans, for the large scale farm units, than for smaller loans on family farms."[10]

So it turns out that the "inefficient" small farmer makes a better risk than his larger more modern counterpart. But why should the large businesses go into farming if they are not more efficient? We have already touched on some of the reasons; to this list we shall add two more: a desire for the economic integration of their industries and speculation.

Let us begin with integration. In an article in Doanes' Agricultural Report, entitled "Big Corporations Invest More in Agriculture," Peter Grace, President of W. R. Grace, is quoted as saying in 1967:

> ...U. S. nitrogen plants are operating at only 78% of operating capacity in 1968.[11]

The article continues by noting that:

> Most firms supplying petroleum products and ag chemicals are being forced by the competition to offer credit (like John Deere and Co.). They would prefer not to do this, especially with today's high cost of money...
>
> During the struggle for control of Kern County Land Company last summer, more than one fertilizer firm was interested in acquisition, from the standpoint of guaranteeing an outlet for a large amount of their products on the company's huge irrigated crop acreage.

In the end, Kern County Land Company was bought out by Teneco Oil Company. Now Teneco produces fertilizers for its almonds, harvests them and then packs them. Teneco has three thousand, eight hundred acres of grapes; one thousand eight hundred and fifty acres of almonds; one hundred acres of citrus; nine hundred acres of peaches and plums all on a very small fraction of its total land holdings.[12] These are very lucrative specialty crops which produce a valuable crop on just a few acres. Teneco can supply its own petro-chemical products to run all aspects of their operation.

Teneco provides us with a useful example of the final reason for large corporations desire to enter the agricultural sweepstakes: Speculation. Urbanization, farm subsidies and the general growth of population all contribute to the rise in farm real estate value. Here is what an agricultural economist with the Federal Reserve Bank of Kansas had to say on the subject:

> Past rates of appreciation on farm land and rural estate have been impressive. Although there is no assurance of continued increase in land prices, acquisition of farm land remains an attractive inflationary hedge for firms with adequate liquidity. Because of other considerations such as rapid transportation, urban sprawl, population growth, and expanding recreation needs, land may be acquiring a renewed investment appeal.[13]

Another agricultural economist put the answer more simply. He said, "Many people who invest in farmland... simply count on capital gains occurring; that is, a rise in the value of the land.[14] Simon Askin, Teneco's Executive Vice-President for Agriculture and Land Development agrees. He says that at Teneco "We consider land as an inventory, but we are all for growing things on it while we wait for price appreciation of development. Agriculture pays the taxes plus a little."[15] Table III shows how fast farm real estate appreciates.

The effect of favorable tax laws and cheap credit on large farms is that "high leverage (that is, the ability to use borrowed money) and capital gains on the scale experienced over the past decade can convert a nominal rate of return on total investment of 1 or 2% into an effective rate of return on equity of 8% to 10% or higher."[16] Land speculation and the opportunity for verticle integration make large farming even more profitable. Stock market manipulations also play a role in making large scale agriculture more attractive to non-farm corporations. According to Walter Minger a vice-president of the Bank of America in San Francisco,

> Most agri-business companies don't sell at near the P/E (price to earnings ratio) of the non-agricultural companies. In other words, a non-agricultural firm earning a hundred thousand dollars per year might be expected to sell for around two million dollars. On the other hand an agricultural firm earning the same amount might be expected to sell for seven hundred thousand dollars to one million dollars, or at a much more favorable P/E ratio. What this means is that the company acquiring the agri-business firm gets an immediate improvement in its share earnings."[17]

Thus, much of the profitability of large scale farming has nothing to do with efficiency but it does have a great deal to do with the viability of the family farm.

Given our unwillingness to put more money into the hands of the hungry, we have an over supply of food. As a result, the market should signal that resources should be taken out of agriculture and channeled into other areas where they could be used better. But the subsidies, tax laws and other forces we mentioned give an opposite signal. They encourage corporations and wealthy individuals to devote more resources to agriculture, thus increasing the glut of food. These counter signals are very strong. The subsidy program alone transfers from 9 to 10 billion dollars from taxpayers and consumers into the hands of farmers.[18] The large liquid corporation can find this situation ideal. Only a small profit, if any, is earned on the growing of food, so few taxes have to be paid on this part of the operation. At the same time the land becomes much more valuable. No taxes (except property taxes) have to be paid on this increase in value until the land is sold, and then it will be taxed at the reduced capital gains rate.

The small farmer has different needs. Unless he can sell his harvests for a decent price, he cannot make a living. He needs his income today to pay for his current expenses. The rising land values do not help him much in his farming; he can take advantage of them only when he ceases to farm.

Many small farmers cannot hold on. Between 1950 and 1970 the number of farms in our nation was almost halved.[19] Moreover, the number of people employed on farms fell at a slightly faster rate. Rudolph A. Peterson,

> What is needed is a program which will enable the small and uneconomic farmer--the one who is unwilling or unable to bring his farm to the commercial level by expansion or merger--to take his land out of production with dignity."[20]

A spokesman for Gates Rubber Corporation was a little more blunt:

> The economists say that forty percent of the people in agriculture are going to have to leave the farms eventually--we're just helping some of them to make the change."[21]

Ironically, Gates Rubber has proved a failure in its venture in agriculture.

The disappearance of the small farm is a tragedy for two reasons. Firstly, many of the displaced farmers and farm workers cease to play a productive role in society. Their training is worthless in the city. As a result they add to the welfare roles and tax burdens of the city. Secondly, the small farm has some very positive human values. A 1947 study by Walter Goldschmidt is illustrative.[22] Goldschmidt studied two farming communities in California's Central Valley. One was dominated by large farms and the other was a community of small family farms. Where the family farm prevailed, Goldschmidt found a higher standard of living, superior physical facilities like streets and sidewalks, more parks, more stores with more retail trade, and twice the number of organizations for civic improvement and social recreation. Besides the small farm community had two newspapers where the other only had one. In short, the small farm community was a better place to live, perhaps because the small farm offers an opportunity for 'attachment' to real biological processes. As E. E. Evans wrote:

> Deepened by the devotion of daily work and seasonal festival and by the traditional use of home-grown foods, and of local materials for tools, crafts, clothing, and housing...(T)he peasant, in continuous touch with the whole cycle of production, can sense the wholeness of life and derive therefrom satisfaction and self-confidence."[23]

TABLE II

REAL ESTATE VALUES: U.S. AND CALIFORNIA

Year	California	U.S.
1950	58	65
1960	109	106
1965	160	139
1969	186	179
	(1957-1959 = 100)	

Source:

Farm Real Estate Market Developments, 1965-March 1969, U.S.D.A., E.R.S., Appendix, p. 6.

TABLE III

AVERAGE VALUE OF AN ACRE OF IRRIGATED LAND USED FOR ORCHARDS AND GROVES IN CALIFORNIA AND THE SAN JOAQUIN VALLEY

Year	San Joaquin Valley	California
1965	1230	2160
1966	1832	2103
1967	1875	[illegible]650
1968	1775	2800
1969	1900	2850

Source:

California Agriculture 1969: A Report on California's Principal Crop and Livestock Commodities, California Crop and Livestock Reporting Service, Sacramento, California, May 1970.

Now we come to the heart of the paper in which we go into some economic, ecological and social reasons for the superiority of the small farm. Our arguement is grounded on one historical fact: that until the age of industrialization, all societies had to work harder to feed themselves as their population grew; that is, a one percent increase in population meant a larger than one percent increase in the work required to feed everyone. You can find a very nice documentation of this fact in Ester Boserup's The Conditions of Agricultural Growth.[24] We have reversed this trend with industrialization only by means of harnessing the energy of fossil fuels. This stored up energy made it possible for the farmer to cut the soil with steel plows, to harvest with sophisticated machinery and then to take his produce to cities hundreds or even thousands of miles away.

The most dramatic form of mechanization was the tractor. As late as 1920, more than 20 million horsepower was provided by horses and mules. These animals had to be fed from the land.[25] With the adoption of the tractor, this land was freed to produce food for humans instead of horses and mules. A tractor feeds on oil. Not only was land freed by the tractor; labor was also freed because one man plowing with a tractor could do the work of several men plowing with a mule. The net effect of mechanization is shown in Table IV.

The displaced workers left the farms to go to the cities where they produced inputs for agriculture as well as the goods and services which constituted our GNP. But as we produced more goods, we consumed more and more of our stored up energy.

TABLE IV

How Mechanical Power Replaces Human Power

YEAR	TRACTOR HORSEPOWER MILLIONS	MAN HOURS OF FARM WORK MILLIONS	COST OF OPERATING AND MAINTAINING FARM CAPITAL MILLION DOLLARS
1920	5	13,406	
1950	93	6,922	5,640
1960	154	4,590	8,310
1969	203	3,431	11,500

*Source: Changes in Farm Production and Efficiency, A Summary Report, 1970, United States Department of Agriculture, Statistical Bulletin, No. 233, Washington, June, 1970.

To show what high levels of energy consumption mean for agriculture Fred Cottrell tried to compare the energy budgets of Japaneese and American farming.[26] He found comparable statistics for two rice farms, one in Japan and the other in Arkansas. Each had approximately the same yeild per acre. In Japan, an acre could be cultivated and harvested with about 90 man-days which is equivalent to 90 horsepower hours. On the Arkansas farm, more than 1,000 horsepower hours of energy were used just to power the tractor and truck. Moreover, the non-residential consumption of electrical energy exceeded 600 hp-hours. Cottrell did not even include the energy required to produce the tractors and equipment.

For instance, in the United States farmers use the average tractor four hundred hours per year.[2] Since the average tractor is about 40 horsepower, we can estimate that each tractor represents about 16,000 horsepower hours of use.[28] Assuming that the average tractor consumes about .1 gallon of fuel per hour, then its use represents 1,600 gallons of fuel per annum.[29] Since we have five million tractors in the U. S.,[30] we can estimate that tractors alone consume about eight billion gallons of fuel.

These 8 billion gallons represent about one thousand trillion BTU's of heat value or almost 2 percent of our total energy budget. The average American consumes around 3,000 calories daily which is equivalent to 756 BTU's, or an annual rate of consumption of about 275,000 BTU's. Two gallons of gasoline have a heat value of almost 275,000 BTU's. Since our population is about 200 million, we eat about 55 trillion BTU's or about 1/20th as much energy as we burn in our tractors. Harold C. Barnett estimates that if we were to get all of our farm horsepower from horses, we would need 20 to 50 times as much crop land just to feed these animals.[31]

Electricity also contributes a great deal to farm production. Electricity use by farmers accounts for about 2½% of all electricity used.[32] In 1968 our electricity generating plants consumed the equivalent of a little more than 14,000 trillion BTU's.[33] Thus, agriculture consumes the equivalent of 350 trillion BTU's of fuel, or an equivalent of almost 2 million BTU's for each inhabitant of the United States. The heat value of 2 million BTU's is approximately equal to that of 14 gallons of gasoline.

According to Delwiche's estimates we actually use more than twice as much energy to prepare, seed and harvest our farms.[34] He estimates that we use 1.5×10^9 calories of energy for each hectare (2.471 acres) of land we cultivate. In 1964, at the time of the last Census of Agriculture, we farmed about 334 million acres of crop land.[35] This much land (which does not include grazing land) would require the equivalent of about 3×10^{10} gallons of gasoline, or about 150 gallons of gasoline for each American we feed. Even here we have not taken into account the energy required to produce the farm equipment, nor the energy used to store and distribute the food. For instance, farmers purchase products containing 360 million pounds of rubber, about 7% of the total U.S. rubber production, and 6½ million tons of steel in the form of trucks, farm machinery and fences. Farms consume about one third as much steel as the automotive industry.[36]

Our fertilizer industry also consumes enormous amounts of energy. Our current technology requires about 10^7 calories for each kilogram of nitrogen fertilizer we produce commercially.[37] In 1969 U. S. farms consumed about 7.5 million tons of nitrogen fertilizer which required about 2×10^{14} BTU's which is the equivalent in heat value of more than 1.5 billion gallons of gasoline, or about 8 gallons for each American we feed.[38] But then our nitrogen fertilizer makes up only one fifth of our total commercial fertilizer supply.[39]

I don't mean to imply that agriculture is the main user of energy in our society. In 1970, the U. S. consumed about 64,000 trillion BTU's of energy. Thus, the average

American consumes the equivalent of about 5,000 gallons of gasoline per year. For instance, a typical American consumes the energy equivalent of about 10 gallons of gasoline just to watch a black and white television set.[40] By that standard, agriculture's consumption of 100 gallons of gasoline to feed one person does not seem extravagent. Besides, we use more than 20 per cent of our acreage for exports which feed citizens of other nations, and we use some of our crops for industrial purposes. The problem is that agriculture is supposed to be the energy producing sector of the economy. The crops we harvest should capture the energy of the sun and store it in a useful form so that we can use it to nourish our bodies or to perform some other service for us. And now our agriculture has become a major consumer of our stores of energy. In fact, agriculture uses more petroleum than any other single industry.[41]

If we are facing an energy crisis, then we mightdo well to measure efficiency in terms of output of food per unit of energy instead of output of food per unit of labor. This new measure makes more sense in light of the population explosion which makes many people think of a redundancy of labor rather than a scarcity.

If we should decide to measure efficiency in terms of the conservation of energy, then American agriculture comes out very poorly. Harris estimated that Chinese wet rice agriculture could produce 53.5 BTU's of energy for each BTU of human energy expended in farming it.[42] But this energy came from humans who burnt rice in their bodies rather than fossil fuel. If we are facing an energy crisis, then our present system of agriculture is clearly irrational. For each unit of energy the wet rice farmer expents, he gets more than 50 in return; for each unit of fossil fuel energy we expend (assuming we use no other energy than that consumed by our tractors) we get about 1/20th in return. On the basis of these two ratios, Chinese wet rice agriculture is more than one thousand times as efficient as our own system. Moreover, if we include the energy expended by workers on the farm as well as energy used to support other parts of the farm operation, American agriculture would appear even more inefficient. In 1969, we used more than 63 thousand-trillion BTU's of energy.[43] About 10% of our total domestic demand for petroleum products goes to agriculture.[44] If this statistic were applicable for energy consumption as a whole (and I suppose it is approximately correct) then we could estimate that agriculture consumes 6,300 trillion BTU's on the basis of this estimate of the energy used in agriculture, Chinese wet rice farming would be 6,000 times as efficient as our own.

Let us take a moment and look to the type of technology we will need in the future. We have already mentioned the population explosion. More people will be competing for a fixed or diminishing supply of natural resources. All other things being equal, the "excess" of people should lower the value of labor relative to the value of raw materials. But our technology is based on a historical pattern of rising prices and falling raw materials costs. Take the price of gasoline, for example. We saw earlier that two gallons of gasoline had a heat value almost sufficient to supply a human with enough calories to keep him alive for a whole year. We pay less than one dollar for these two gallons of fuel. Even at these low costs of fuel, about 1/2 to 1/3 of the cost of owning and operating a tractor is the cost of fuel.[45] If we paid as much for a calorie of gasoline as we paid for a calorie of corn, the cost of many farm machines would be prohibitive.

Furthermore, with a population explosion we need to discover ecologically sound means of employing our population. Agriculture and the care of natural resources seems a good place to start.

I tried to make a rough estimate of the effect of care on agricultural production, using data from the 1964 Census of Agriculture. I found a pattern which showed that in any state the value of the crops grown on the average acre tend to be larger when the average farm size is small. For instance, Rhode Island has the smallest average farm size, ninty-four acres.[46] An average Rhode Island acre produces $183 worth of crops, almost as much as the leading state, Connecticut, whose average productivity is $192 per acre. (Connecticut's average farm size is 119 acres.) Other states with large farms produce much less on the average acre of land. One explanation might be that many small farms in Connecticut are truck farmers who produce for nearby urban markets. You cannot compare these farms with ranches in Nevada or Wyoming. So let us look at North Carolina, which has the second smallest average farm size, 97 acres. The average North Carolina farm produces about $74 worth of crops per acre on very thin soil. This amount is only $3 less than what the average Iowa farm produces per acre, yet Iowa land is much more fertile. It is in the center of the corn belt and it is associated with the most progressive forms of American agriculture. Why isn't Iowa more productive than North Carolina? I suspect that one major reason is the care which the poor, southern, dirt farmer gives his land in order to make a living from his impoverished soil. He is in more intimate contact with his soil. Let us use a very rough index for this contact; take the ratio of how much money is spent for gasoline and other fuels in any state to the number of people working the land.[47] In Iowa about $400 is spent on fuel for every man working the soil. In North Carolina, the amount is about $177, about half as much as Iowa, and less than any other state.

A comparison with Maine reinforces our picture. The average Iowa farm is a little larger than the average Maine farm (219 acres compared to 201 acres). But the real estate value of the average Maine farm is worth about 1/3 as much as that of the average Iowa farm.[48] Maine soil is not very fertile, yet the average Maine acre produces $99 worth of crops. Maine farmers spend only $194 on fuel for each man working on Maine farms. Again, care of the land seems to produce better crops. If we are going to feed an evergrowing population, we are going to need more and more of this care. But it is cheaper to pollute our water with pesticides and nitrates; it is cheaper to dessicate our topsoil. As a result, our natural resources are wasted, and as we shall see in the case of corn, the quality of our food suffers. Moreover, our yields are not very high even though we have some of the finest agricultural soils in the world. For instance, Japaneese peasants are able to harvest 1,100 more kilograms per hectare than an American farmer. Yet the Japaneese have considerable worse climate and much poorer soil.[49]

In the Orient, however, care of the land is a fine art. Although much of their land is marginal, they have been able to farm it with yields comparable or higher than our own. Yet this land has been farmed for forty centuries.

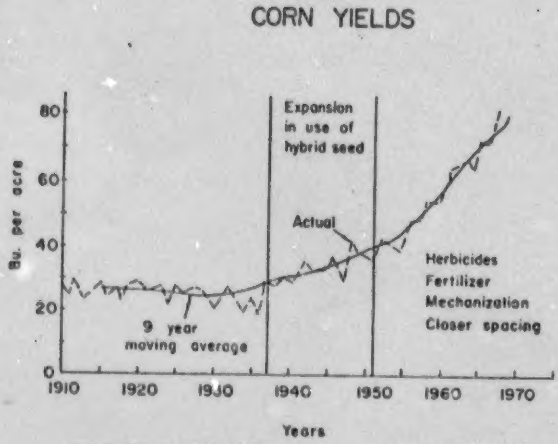
One example might help to explain how the Chinese, for instance, have been able to maintain their resources. In the part of the United States where I live we clear our lands of rice stubble by burning the fields; in China, rice stubble was used for all sorts of purposes, but it was also burnt as a cooking fuel. The heat from the stove was drawn off through pipes and led to large black blocks of subsoil which absorbed the heat. These blocks made nice, warm beds for the Chinese. Sooner or later, the beds began to crumble; the heat and the nutrients from the smoke had opened the blocks up to microbial life. So the crumbling beds were returned to the fields where they made excellent fertilizer. Everything was used and nothing was wasted. According to some, Chairman Mao is maintaining this ethic in China today.[50] As the Peking Review wrote last year, "There is nothing in the world which is absolute waste. 'Waste' under one condition may be valuable under different ones."[51]

However, we have no such ethic, and because we do not care for our natural resources, neither our yields nor the quality of our food is very high. The history of our corn crop is instructive here:

> American soils have been almost legendary for their fertility. One commentator was only slightly exaggerating when he said that our soils are so rich that "if you tickle them with a hoe, they laugh with a harvest."[52] We were so mindless about protecting this fertility that we have spent much more effort worrying about farm soils themselves. Part of our carelessness was understandable; we seemed to have a boundless supply of land and so long as there was new land to put under cultivation, the effects of soil depletion would be less striking. For instance, between 1870 and 1902 corn yields per acre remained constant, but about two-thirds of the increased acreage was located in eight cornbelt states where the mean yield was twenty percent higher than the United States average. Then between 1902 and 1925, yields were able to increase slightly, but this increase in yield was made possible because less fertile land, like that found in Texas and Oklahoma, was taken out of production. Soon after the beginning of the 1920's yeilds began to fall and although acreage remained constant until the early 1930's, total production began a downward trend. Then from the 1937 low, yields rose to a 74% above the ninty

year mean for the period 1870 to 1960. One part of the explanation is that production was discontinued on more than 17% of the 1937 acreage in the relatively low yielding southern states. (This land was probably taken out of production because the soil was too depleted to continue further cultivation of the corn.) Another reason for the rising yields of the late 1930's was the introduction of high yielding hybrid corn.[53] The picture of the pattern of corn yields is shown in Figure I. The more extensive roots system and aggressive feeding characteristics of the hybrids, enabled them when first introduced, to extract fertility which was inaccessible to open polenated varities. That is, hybrid corn sped up the rate of soil depletion. But there was another reason why the hybrid corn produced more. The increased yields were bought at a cost of lower protein content.[54] The agronomists refer to what they call the inverse nitrogen law which says that the more nitrogen we find in a crop the less we can expect its yield to be. And similarly the higher the yield the less percentage of nitrogen we can expect to find. Nitrogen is found in all proteins and may be taken as a rough proxy for the protein level of the corn. For example, low yielding Indian corn has shown a protein content of from 12 to 15%; over the years we selected those seeds which produced more until the protein content fell substantially.

Figure I



Source:

S. H. Witwer, Research and Technology on the U. S. Food Supply, in Research for the World Food Crisis, a symposium presented at the Dallas meeting of the AAAS, Dec. 1968, Daniel G. Aldrich, Jr., Ed., Pub. No. 92, AAAS, Washington, D. C., 1970, pp. 77-124.

> When in 1911, before hybridization the practice was common, the mean concentration in this feed grain was reported as 10.30% for a single grade. By 1950, the top grade among five, then listed contained 8.8% while the lowest had 7.9%. By 1956, among 50 tested corn grains from the outlying experiment fields of the Missouri Experiment Station, one sample of these hybrids reached a low of 5.15% of "crude" protein, or a value just half of what it had been 45 years ago.[55]

At first, livestockmen complained about the value of hybrid corn as a feed,[56] but we don't hear much about that anymore, because feed today is supplemented with heavy doses of fish protein. Most of this comes from fish caught oof the shore of Peru where the people suffer from protein deprivation. The United States imports enough fish protein to wipe out one-half of the protein deficiency in the entire continent of South America.[57] That is, our corn crop required foreign protein subsidies to make it into a sufficiently nutritious animal feed.

Moreover, when we produce larger yields through heavy fertilizer applications, we upset the balance of nutrients in the soil and induce deficiencies in our foods.[58] Commercial fertilizers have added to another problem which our farming methods have caused, namely, soil depletion. A committee of the National Academy of Sciences believes that we have lost about one third of our topsoil.[59] According to Barry Commoner, the organic content of our Midwest soils has declined in the last 100 years by about 50%.[60] While many people believe that commercial fertilizers can reverse the process of soil depletion, studies at the Missouri Experiment Station show that they actually speed up the loss of fertility.[61] The magnitude of man's effect on the topsoil is so great that some scholars believe that the main reason for the increase in our atmospheric carbon dioxide comes from the oxidation of organic soil carbon rather than from the burning of fossil fuels.[62]

Perhaps the most important property of hybrid corn is its regularity; because all the hybrid corn plants are just about the same height on the stalk, mechanical harvesting becomes a simple matter. Thus, hybrid corn helped to speed up the mechanization of agriculture. And perhaps most of all, hybrid corn demonstrated the productivity of 'efficient' agriculture.

However, our technology weakens our crops and makes them more susceptable to disease, witness the recent Southern Corn Leaf Blight Epidemic which was caused by the way in which we manipulated the genes of our corn crop.[63] The chemicals we use to aid in farming are dangerous to many different life forms: birds, pets, and even humans. Yet, all this is considered efficient. In fact, economists have not paid much attention to the drawbacks of our technology while they try to carefully assess its benefits. One of the best examples of this bias is the work of Zvi Griliches, who made an empirical evaluation of the effects of the research which made hybrid corn a reality. Griliches goal is to estimate the dividends which this research paid in terms of social benefits. According to his calculations, the benefits of hybrid corn was more corn at lower prices minus the extra cost of hybrid seed. For each dollar which society spent for research, Griliches estimates that "at least 700% per year was being earned as of 1955, on the average dollar invested in hybrid-corn research."[64] That is, Griliches estimated that this research was as profitable as an investment in which one dollar earns $700 in the following year and $700 in every year thereafter. Griliches stands by his estimate. A few paragraphs earlier, he declares, "...actually I believe my estimate is biased downward, for whenever I had to choose among alternative assumptions, I chose the assumption which led to the lowest estimate."[65]

What we need is a complete rethinking of what efficiency means. We need to think of efficiency in a way so that when someone says that a farm or a factory is efficient we mean that it makes our lives better than any other form of farm or factory.

FOOTNOTES

[1] Clifford M. Hardin, foreward to Contours of Change, U.S.D.A. Yearbook of Agriculture, Washington, 1970, p. xxxiii.

[2] Cited by Reuban W. Hecht and Eugene W. McKibben, in United States Department of Agriculture, Power to Produce, Yearbook of Agriculture, 1960, United States Government Printing Office, Washington, 1960, pp. 317-331, p. 323.

[3] Ibid., p. 325.

[4] United States Department of Agriculture, Agricultural Statistics, 1971, United States Government Printing Office, Washington, 1971, p. 454.

[5] Cited in a speech by Senator Lee Metcalf on March 10, 1969 before the House Ways and Means Committee, Printed in that committee's Tax Reform, 1969, Washington, 1969, p. 2070.

[6] Charles L. Schultze, The Distribution of Farm Subsidies: Who Gets the Benefits?, Brookings Institution, Washington, D. C., 1971, pp. 15-16.

[7] See Legislative Reference Service, Farm Programs and Dynamic Forces in Agriculture: A Review and Appraisal of Farm Price Support Programs and the Dynamic Functioning of Agriculture in Recent Years, U. S. Senate, Committee on Agriculture and Forestry, United States Government Printing Office, Washington, 1965, pp. 13-14.

[8] See the statement by Gerald Meral before the Senate' Subcommittee on Migratory Labor, San Francisco, January 11, 1971, to be published by that committee in the record of those hearings.

[9] Wm. A. Hewitt, from speech in Board of Governors, Federal Reserve System, Financing Small Business, U. S. Government Printing Office, 1958, p. 364.

[10] Don Paarlberg, "Future of the Family Farm", speech before the 55th Annual Convention of the National Milk Producers Convention, Americana Hotel, Bal Harbour, Florida, Nov. 30, 1971.

[11] Anon., "Big Corporations Invest More in Agriculture", Doane's Agricultural Report, January, 1968.

[12] Anon., "Personnel: One of the Basics at KCL", Western Fruit Grower, October, 1969, p. 5.

[13] Gene L. Swakhamer, "The Growth of Corporate Farming", in Monthly Review of the Kansas City Federal Reserve Bank, May, 1968, p. 15.

[14] Franklin J. Reiss, "Is $900 Per Acre Too Much for Farmland?", Illinois Agricultural Economics, July, 1968, p. 23.

[15] Simon Askin, Congressional Record, October 4, 1971, p. S15714.

[16] Phillip M. Raup, "Economics and Diseconomies of Large Scale Agriculture", American Journal of Agricultural Economics, Vol. 51, No. 5, December 1970, pp. 1274-1283, p. 1280.

[17] Henry Fiola, "Interview with Walter Minger, Vice President, National Division, Bank of America, S. F.: Corporate Acquisitions: What they are all about and why they take place", Western Fruit Grower, July, 1969, p. 18.

[18] Charles L. Schultze, op. cit., p. 1.

[19] United States Department of Agriculture, Agricultural Statistics, 1970, U. S. Government Printing Office, Washington, 1970, Table 615, and Agricultural Statistics, 1967, Table 628.

[20] Cited in "Farm Policy Question", Agri-Finance, Jan./ Feb., 1969, p. 42.

[21] Said to the Select Committee on Small Business of the United States Senate, Subcommittee on Monopoly in hearings held in Omaha, Nebraska, May 20, 1968, p. 11.

[22] Walter Goldschmidt, As You Sow, Free Press of Glencoe, 1947.

[23] E. E. Evans, "The Ecology of Peasant Life in Western Europe", in Man's Role in Changing the Face of the Earth, Thomas, Ed., University of Chicago Press, Chicago, 1956, pp. 217-39.

[24] Ester Boserup, The Conditions of Agricultural Growth, The Economics of Agrarian Change Under Population Pressure, Aldine, Chicago, 1965

[25] Austin Fox, Demand for Farm Tractors in the United States, United States Department of Agriculture, Economic Research Service, Agricultural Economic Report No. 103. November, 1966, P. 1.

[26] Fred Cottrell, Energy and Society, McGraw Hill, New York, 1955, pp. 138-140.

[27] In 1956 tractors were used an average of 605 hours annually. See United States Department of Agriculture, Agricultural Research Service, *Farm Tractors, Trends in Type, Size, Age and Use*, Agricultural Information Bulletin, August, 1960. However, Paul Strickler, an agricultural economist with the Farm Production Economics Division of the USDA, wrote me to say that unpublished data shows that the average usage has fallen to about 400 hours.

[28] United States Department of Agriculture, Economic Research Service, *Changes in Farm Production and Efficiency, 1970*, Statistical Bulletin No. 233, Washington, D. C., June, 1970.

[29] See Arthur Shultis, "Estimating Tractor Costs," *Data For Your Farm Management Handbook*, No. 2, July, 1971, reissued September, 1963.

[30] United States Department of Agriculture, Agricultural Research Service, op. cit.

[31] Harold C. Barnett, "The Myth of Our Vanishing Resources", *TRANS-action*, June, 1967, pp. 7-10.

[32] Committee on Agriculture, House of Representatives, *Food Costs-Farm Prices: A Compilation of Information Relating to Agriculture*, United States Government Printing Office, 92nd Congress, 1st Session, Washington, D. C., July, 1, 1971, p. 20.

[33] United States Department of Commerce, *Statistical Abstract*, 1970, United States Government Printing Office, Washington, 1970, p. 506.

[34] C. C. Delwiche, "Nitrogen and Future Food Requirements", in *Research for the World Food Crisis, A Symposium Presented at the Dallas Meeting of the American Association for the Advancement of Science, December, 1968*, Daniel G. Aldrich, Jr., ed., Publication 92, American Association for the Advancement of Science, Washington, D. C., p. 204.

[35] United States Department of Agriculture, *Agricultural Statistics, 1971*, op. cit., p. 494.

[36] Committee on Agriculture, *Food Costs-Farm Prices*, op. cit., p. 20.

[37] Delwiche, "Nitrogen and Future Food Requirements", op. cit., p. 204.

[38] United States Department of Agriculture, *Agricultural Statistics, 1971*, p. 494.

[39] Ibid., p. 494.

[40] W. D. Brune, Jr., Director of Industrial Services, of Pacific Gas and Electric Company, "The Economic Impact of Electric Power Development, a Talk Before the National Engineers' Week Symposium", Chico State College, February 26, 1972, mimeo, p. 7.

[41] Committee on Agriculture, *Food Costs-Farm Prices*, op. cit., p. 20.

[42] See Roy A. Rappaport, *Pigs for the Ancestors*, Yale University Press, New Haven, 1967, p. 262, referring to Marvin Harris, "Cultural Energy", n. d., unpublished.

[43] Bureau of the Census, United States Department of Commerce, *Statistical Abstract of the United States*, 1970, p. 774.

[44] Howard F. McColly, "The Place of Petroleum" in *Power to Produce, Yearbook of Agriculture, 1960*, United States Government Printing Office, Washington 1960, pp. 61-69, p. 64.

[45] Ibid., p. 64.

[46] Data on acreage and value of total harvest by state can be found in the *Statistical Abstract*, op. cit., p. 585.

[47] Expenditures for fuel can be found in the *Statistical Abstract*, op. cit., p. 598, and the total number of people working on farms in 1964 can be found in the 1965 edition of Agricultural Statistics, p. 441.

[48] United States Department of Agriculture, Economic Research Services, *Farm Real Estate Market Developments*, August, 1971, p. 8.

[49] See Kusim Nair, The Lonely Furrow, *Farming in the United States, Japan and India*, University of Michigan Press, Ann Arbor, 1969, p. 109.

[50] See Leo A. Orleans and Richard P. Suttmeir, "The Mao Ethic and Environmental Quality", *Science*, Vol. 170, Dec. 11, 1970, pp. 1173-6.

[51] The Peking Review, 5 February, 1971.

[52] Cited by W. S. Jevons, *The Coal Question: An Inquiry Concerning the Progress of the Nation and the Probable Exhaustion of Our Coal Mines*, 2nd ed., MacMillan & Co., London, 1966.

[53] The history of U. S. corn yields is summarized from James O. Bray and Patricia Watkins, "Technical Change in Corn Production in the United States, 1980-1960," *Journal of Farm Economics*, Vol. 46, No. 4, November, 1964, pp. 741-765.

[54] See Hugh Nicol, The Limits of Man, An Inquiry Into the Scientific Bases of Human Population, Constable, London, 1967, p. 88: "In 1900 Lawes and Gilbert published a voluminous paper in which they pointed out inter alia that in non-leguminous crops such as cereals and turnips, in the state in which they are usually harvested, a characteristic effect of nitrogenous fertilizers is to increase yields per acre of starch, sugar, and fat--the non-nitrogenous constituents. . . . (t)his magisterial statement has not been mentioned in any textbook as far as I know." (J. B. Lawes and J. H. Gilbert, Phil. Trans. Roy. Soc., B, 1900, Vol. 192, pp. 139-210.) One exception though it is not a textbook is William Albert Albrecht, Soil Fertility and Animal Health, Fred Hahne Printing Co., Webster City, Iowa, 1958. See also O. W. Wilcox, Nations Can Live at Home, W. W. Norton, N. Y., 1935, p. 118 and pp. 142-3. George Borgstrom in The Hungry Planet, MacMillan & Co., London, 1959, p. 37, says that "new wheat varities, most of which contain 20-25% less protein compared with the wheats grown when W. W. II ended" are partly responsible for our huge wheat surpluses. We have developed a new strain of corn, the high-lysine corn, which has a higher protein content, but as would be expected the increase in protein is bought by a decrease in yield. In this case, it turns out that yields fall from 6 to 10%. See Dale D. Harpstead, High-Lysine Corn, Scientific American, August, 1971, Vol. 225, No. 2, pp. 34-42, p. 42.

[55] Wm. A. Albrecht, "Diagnoses or Post-Mortems?", Natural Food and Farming, September, 1959, pp. 6-32, p. 24.

[56] See Feedstuffs, June 14, 1947.

[57] Francis Moore Lappe, Diet for a Small Planet, Ballentine, New York, N. Y., 1971, p. 12.

[58] For instance the application of nitrogen fertilizer in Alberta has aggrevated the problem of sulphur deficiency in alfalfa and clovers. See M. Nyborg and C. F. Bentley, "Sulphur Deficiency in Rapeseed and Cereal Grains", in Sulphur Institute Journal, Vol. 7, No. 3, Fall 1971, pp. 16-17, and see also Michael Blake, Concentrated Incomplete Fertilizers, Crosby Lockwood, London, 1967, p. 14 and following.

[59] National Academy of Sciences, The Life Sciences, National Academy of Sciences, Washington, 1970, p. 1961

[60] Barry Commoner, "Nature Under Attack", Colombia Forum, Spring, 1968, Vol. 11, No. 1.

[61] See Wm. A. Albrecht, "The 'Half-Lives' of Our Soils", Natural Food and Farming, Sept., 1966, pp. 7-11, p. 9.

[62] See Roger Revelle and Hans E. Suess, Tellus, Vol. 9, No. 1, pp. 18-27.

[63] See Michael Perelman and Richard Merrill, "Texas Male Sterile", Clear Creek, San Francisco, May, 1971.

[64] Zvi Griliches, "Research Costs and Social Returns: Hybrid Corn and Related Innovations", Journal of Political Economy, October 1958, pp. 419-431, reprinted in Nathan Rosenberg, ed., The Economics of Technological Change, Penguin Books, London, 1971, pp. 182-202, p. 183.

[65] Ibid., p. 182.

Senator **Stevenson**. Our next witness is Mr. Floyd Allen, the west coast editor of "Organic Gardening and Farming"

STATEMENT OF FLOYD ALLEN, WEST COAST EDITOR OF "ORGANIC GARDENING AND FARMING"

Mr. **Allen**. Senator Stevenson, with your permission, I will read a summary of my submitted statement.

Senator **Stevenson**. That would be fine and we will enter your full statement in the record following your testimony.

Mr. **Allen**. As it should be, as an editor of "Organic Gardening and Farming", my testimony is biased, opposing most of the current agricultural practices followed today, as well as certain numerous, almost countless, practices utilized by conventional food processors and retail chains.

As a representative of the Rodale Press, most of what I express surmises more than 25 years of publishing a variety of periodicals and books on a subject ranging from nuclear power to ecology, food marketing, guiding the farming, recycling, health and food technology.

As this committee understands very well, the difficulty in examining a single facet of agriculture such as migratory workers or dangerous pesticides, these cannot be properly understood without being related in context to the whole field of agriculture and food marketing, including at least a brief insight into the history.

For example, prior to 1930 migratory workers and dangerous pesticides were not a significant factor in the distribution of food and fiber. As a matter of fact, millions of very small family farmers, operating without migratory work, and compounds such as DDT or parathion, and utilizing horses and mules and land and labor abundantly, produced enough food and fiber to build and maintain all the cities and counties and towns and villages inherited by the 20th century.

Relating this to the United States, by 1930 our comparatively very small family farmers had, according to our Government "over-produced." The Nation was told that warehouses were bursting and that the American farmers were supposedly producing more commodities than the U.S. could consume or export.

In a radio address, H. R. Tolley, Agricultural Adjustment Act Administrator, described the farm problem accordingly: "The experiences of the 1920's and 1930's taught us that it is necessary to be able to put the brakes on farm production."

After describing the problem of overproduction, it would seem that Federal regulation would act to restrict or reduce production by limiting acreages or at least by encouraging smaller farmers, possibly by establishing subsidies which diminish rapidly as acreages exceed minimal levels. Dramatically millions of meat animals were destroyed, or supposed to be destroyed as Federal price support programs were launched. A most remarkable paradox followed where, in spite of increasing surplus and periodic cries of alarm, imports to this country have increased and the U.S. Department of Agriculture has spent billions of dollars researching and promoting methods such as hybrid seed and so forth to increase production.

Increased production has been accomplished with programs and research almost entirely designed to promote larger holdings. Market development and distribution, utilizing USDA inspectings, the law, and powers to severely penalize have been used to develop and maintain monopolies and price controls which operate specifically against the potential for profitable production from small acreages. Market orders, State and Federal, and quality specifications have been designed which limit the marketable quality that may be harvested per acre, without limiting acreage. Other programs limit, by law, the production which can be produced on specific acreages.

Methods, chemicals, and equipment have been introduced without adequate, or even inadequate attempts to understand their immediate, and long-range impact upon conservation and the environment. Large acreages of productive land have been permanently destroyed through erosion; even larger areas are now eroding seriously. Unestimable millions of tons of humus have been mined from the soil as a direct result of farming larger holdings with bigger equipment and synthetic fertilizers which add nothing to soil's fertility or tilth. Vast areas, particularly in southern States, are now severely crippled by their loss of humus and by methods and materials which have produced large-scale conditions of hardpan. Other regions, including parts of California, are beginning to experience dangerous levels of sodium build-up due to salt fertilizers.

Increasingly, environmental experts are beginning to identify the agricultural practices developed over the past 35 years as the major contributor to pollution. Water pollution due to nitrogen compounds has been recognized and largely accepted, however, the extent is yet to be seen. The annual estimated loss of the topsoil which is choking rivers and reservoirs and washing out to sea is amplified by the annual cost of dredging reservoirs and waterways. The astounding rise in the volume of agricultural contaminants introduced into our environment from 1940 to 1970 is traced by Dr. Barry Commoner in his book, "The Closing Circle".

During the early 1940's a number of Americans, academicians, businessmen, farmers, publishers, and the like, alarmed with the destructive trend set by the U.S. Department of Agriculture, sought to establish an overview which would redirect the Nation's agriculture. Calling themselves The New Agriculturists and/or The Friends of the Land, they published a number of books and periodicals which describe current trends and describe alternative methods and materials, citing demonstrations and examples, giving statistics, and seeking for the first time in this country to promote the concept of the elite farmer, or at least an agricultural system based upon a firm foundation of master farmers operating from an overview which would protect our soil, and environment, and our health.

Apparently the concept was too much before the circumstances and farmers largely failed to respond, and consumers failed to understand the relation of safe, nutritious food to farming methods.

The movement is significant to this committee on two counts:

(1) An alternative agriculture was presented and demonstrated which would have enabled smaller farmers to operate profitably on a nearly self-sustaining basis; and

(2) It called to attention then that federal regulation was sponsoring and pursuing food-producing practices which ignored nutrition and was, in fact, sponsoring methods and materials which would produce a health hazard.

Perhaps in response, and belatedly responding to a USDA survey taken in the mid-1930's which indicated that one-third of the Nation's people were "ill-fed", and casting numerous peculiar questions upon the 1933 USDA position that the Nation was suffering from overproduction, white flour and bread was "enriched", by law, in the early 1940's, with B vitamin and iron. With this single exception, the USDA and related agencies have failed to pursue and to develop methods and materials which would improve, or at least guarantee a high level of necessary vitamins, trace minerals, and the necessary amino acids. Which suggested farmers are legally prevented from producing food that is more nutritious, they are simply not encouraged to.

The market is a term which seems to be describing what consumers are buying, and, while it does reflect what is moving, it tends to mean what retailers buy. Frequently, in fact more and more, farmers would like to supply the real quality and variety which everyone knows that consumers would like, such as food nutrition, but the market price remains the same, and perhaps less. There is little or no profit incentive for real quality or for extra risk. The market dominates and often the size or type of a packing crate is more important than the quality of the product within.

Quickly summarizing, the developments over the past 39 years produce a picture where a stabilized agricultural system of family farms was disturbed, perhaps unnecessarily, systematically eliminated, and is now on the verge of destruction. May we ask why, or perhaps a better question would be what we have in exchange.

In terms of meaningful efficiency, the exchange has been disastrous. If we add together all of the taxpayers' money which has been spent for agriculture-related programs, and add this to the food that we buy, then we are probably paying twice as much as we think we are. If uniformity in a rather boring, mediocre system is important, uniformity is one plus picked up in the exchange.

Then it is also said that the move into larger agricultural units has brought improved distribution, which might be questioned on two counts. One, distribution was bound to improve simply as a matter of need and evolutionary development. Two, why should the production of a 1,000-acre unit improve distribution more than if the same are operated as ten 100-acre units. The real question has to relate to something more, like an attitude, which wants improved distribution for a very, very large unit, to something like, there shall be no differences and uniformity shall spread across the land.

In any event, there is and has been an antilittle attitude, somewhat as though little or small or different or aging and undesirable.

The attitude is unable or unwilling to adjust to more than one type of agriculture and one type of marketing. There shall be no differences is fanatically employed almost endlessly, and a quick review of past events reveals it has been applied detrimentally. It has created an industry largely unable to adjust or to respond meaningfully to a clear and simple demand, the clearest defined consumer demand in our history, for better quality and safer food. It lacks the capacity to recognize that a large growing alternative market is occurring where consumers do want to understand particular problems of those farmers who want to understand them.

The no difference attitude may well be the most dangerous entity to the Nation's well-being today, far outweighing enemies somewhere abroad. While 21 nations refuse to eat U.S. meat because, in their official judgment, our meat is unsafe and incorporates needless unsafe factors, our millions of Americans are compelled to eat such meat without choice or even without the knowledge that they may be consuming carcinogenic agents and developing immunities to emergency lifesaving antibiotics.

Again, as in the 1940's, the official response to the shocking knowledge that our Nation's people are still suffering from increasing malnutrition has been to employ the same old voice-quieting technique by adding more B vitamin and iron to white bread.

In crying no difference, no difference, they seem to hope that, in doing so, they will prevent the logical questions which must come: Namely, can there be a difference? Can our food be grown and processed more nutritionally and safely without additions of agents rate capacity to either be efficient farmers, in any terms, or to produce better natural flavors, put fresher food on our tables?

In our contact with farmers throughout the year, organic and nonorganic, I have yet to talk to a single farmer who fails to agree that the quality of food, in loose terms, can be upgraded through better farming methods.

The attitude that big is better and that, therefore, the adoption of a big conglomeration of big producer-marketing companies should also then be better has been viewed as experimental. As an economist attempting to develop a working model of a pet theory without relating to the historical and practical components making up the model. As a matter of immediate and long-range history, there is absolutely no reason for assuming any great confidence in the corporate capacity to either be efficient farmers, in any terms, or to produce a desirable agriculture. The facts suggest otherwise.

The facts suggest that it is a gross mistake to operate anything as important as food production on the basis that corporations know what they are doing and have a clear understanding of their own best interest. With the least amount of research, reams of substantiating examples could be supplied. Offhand examples demonstrating the point might be Boise Cascade, the Penn Central Railroad, and the Lockheed Aircraft Corp. All demonstrate that it is not practical to imagine that corporations always operate efficiently. As a matter of fact, their consistent history of high cost overruns and expensive mismanaged contracts with the U.S. Government suggests that a supercorporate agriculture will probably have to be subsidized to an amount likely to reach annuals of $15 billion or more. It is already being said that Purex has sustained extensive losses in agriculture and is withdrawing.

The view is easy to picture where, as supercorporate agriculture bumbles and stumbles into fantastic "overruns" and breakdowns, the pressures that will then develop will be for some type of permanent Federal entry into agricultural production.

We really cannot afford to permit our food production and our food-producing resources to slip any further into the hands of an institution which is entirely committed to making money and to moving in and out of profitable markets. For our own protection, we must have a strong alternative which has demonstrated for centuries it is committed, first, to producing food.

Then there are human values to weigh. In 1910, 41 percent of the population lived on farms; in 1963, 25 percent; by 1966, 6 percent; and by 1972, 1 percent.

These statistics correspond with two probably related factors. One, the automobile; two, the mobile society. Our people are restless, moving, frequently changing locations, driving through insane traffic conditions in madcap jammed weekends attempting to be somewhere out of a city. Our young people move about the planet, hitchhiking, wandering and drifting, camping; in fact, our national parks are being deteriorated literally by the feet of youth, seeking some way and somewhere to feel with the land, to be part of an experience which has generated a tremendous yearning to live quietly in a natural environment and produce food for a living.

There is also a disturbing lack of orientation, a lost and not found land of opportunity.

The great yearning to return to the land is rapidly identifying with the elimination of the family farmers, and particularly with small farmers. It had identified with organic farming and natural processing. The pressures developing are more extensive and will be more persistent than is currently understood. The trend is positive; in fact, it has been characterized as the "Gentle Revolution" and it can currently be described as the beginning of an agricultural Renaissance. Exciting innovation is already in progress; an overview is emerging which is pulling towards a system of elite farmers, greatly enhanced by the experiences of the past and the fantastic possibilities for a personalized, direct input from scientists and technologists.

Thank you, Senator.

Senator STEVENSON. I thank you, Mr. Allen.

On page 16 of your prepared statement you say "that the small farmers tend to use more pesticides than do large growers." Why is that so?

Mr. ALLEN. Small farmers, in the State of California particularly, tend to use more pesticides than do large growers, one, because they don't know what they are doing and, two, because they have been red-tagged, which is a term meaning that their crops have either been stopped at the county or state line because the insect tolerance level is too high, and so, in order to prevent this from happening, they use more pesticide.

Senator STEVENSON. Can you tell us a little about your program of label identification for the consumer?

Mr. ALLEN. Yes, I can. The program is paid for and sponsored by Rodale Press, and it incorporates a commitment questionnaire in which the farmer can take a certain specified designated acreage and commit it to the use of organic methods. Then he completes a procedures questionnaire in which he outlines his problems, his deficiencies, and procedures, the organic procedures which he will follow. Then in our certification we correlate or substantiate his methods in two ways, through personal inspections, by Rodale Press representatives, and we utilize the services of Agrisonics Laboratory who send their technicians to the farm, usually, oh, anywhere from three to six times a year. We test the soil, the water and plant tissue.

The Rodale Press inspection will examine procedures, and might ask to see receipts for such as trucking receipts verifying what has been trucked in, seed receipts, et cetera.

Senator STEVENSON. Do you have many farmers participating in this program?

Mr. ALLEN. Seventy have been accepted to date.

Senator STEVENSON. What happens then, are their products labeled in such a way that they become especially identified?

Mr. ALLEN. Yes, they are. We provide a seal called the organic farmer seal, certified by "Organic Gardening and Farming". Our seal does not certify the food, although the food may be identified with the seal. We are certifying the farmer, that he is or does use organic farming methods and materials to produce the foods which he sells.

Senator STEVENSON. Do those foods find their way primarily into the so-called health food stores?

Mr. ALLEN. They are beginning to find their way into supermarkets now, Chico salmon products, rice cakes and brown rice, I understand, are now being sold in a good many of the supermarkets. They are finding their way very rapidly throughout all of the marketing systems.

Senator STEVENSON. And is it your impression they are meeting with a growing consumer acceptance?

Mr. ALLEN. Yes, they are. At a premium price, I might say.

Senator STEVENSON. Why is that, is that because of growing consumer disenchantment?

Mr. ALLEN. With the premium price?

Senator STEVENSON. If he is willing to pay the premium price?

Mr. ALLEN. Organic farmers receive approximately 5 to 20 percent more for their commodities, which does not always reflect the price in the retail store, but, because of the nature of the industry, separate distribution is set up and distribution cost runs about 7 to 10 percent higher than standard distribution, and there is a tendency to market a little higher in a number of the stores and in supermarkets.

Senator STEVENSON. But the consumer acceptance is good?

Mr. ALLEN. Excellent, I would say

Senator Stevenson. Would that partly reflect the growing dissatisfaction on the part of the consumer with the products he encounters in the typical supermarket?

Mr. Allen. The demand has consistently exceeded supply with perhaps one exception, and that would be naturally grown beef. This would not be an organic beef but this would be a grass-fed beef grown without antibiotics and hormones. The problem in this area has been that natural food stores and health food stores cannot stock meat.

Senator Stevenson. Do you suggest any public policy changes that might make it easier for the organic farmer and ultimately for the consumer?

Mr. Allen. I wonder if I would want to just localize it to the organic farmer. Much of the problem in bringing the farmer and the consumer together, of bringing a better method of production, a more appreciative method of production, relates to the agricultural codes which we have, both State and Federal agricultural codes, market orders, and advising districts. We do have quite a bit more organic food right now. As a matter of fact, there are a number of excellent growers in California that have converted long ago to organic soil method programs by necessity and they need only to convert their sprays. However, the insect tolerances are so restrictive, they are almost mandatory requirements to use sprays, and, as long as these restrictions remain so narrow and so tight, they have little hope of shipping their commodities outside of the county or the State line.

May I give an example. For example, a good example would be plums or nectarines or peaches. The principal insect problem for these fruits is an insect called a thrip, and when the plum or the fruit is very small it is penetrated by this insect, it does no damage to the fruit but it does leave a mark or a scar, and this remains with the fruit, and, if the percentages of these marks exceeded a very low minimum, the fruit cannot pass the State line.

Senator Stevenson. Even though the insect has no effect on the safety of the product?

Mr. Allen. That is correct, Senator.

As a matter of fact, so-called quality standards, both State and Federal, are misleading. They are not quality standards, as we would think them to be. They are appearance standards. They are cosmetic standards. They might designate a minimum size, for example, a minimum shape. They are not even really consistent with maturity.

A gentleman earlier mentioned that he had not been able to buy pears for 4 years that tasted like a pear. The pears were probably picked too green, as most of the fruit is picked.

Senator Stevenson. That is very interesting, Mr. Allen, and I am very grateful to you for joining us today. We will print your entire, unabridged statement at this point in the record.

(The prepared statement of Mr. Allen follows:)

STATEMENT TO:

SENATE SUBCOMMITTEE HEARING ON MIGRATORY LABOR

SENATOR ADLAI E. STEVENSON III
CHAIRMAN

JANUARY 11, 1972
CEREMONIAL COURTROOM
19 TH FLOOR FEDERAL BUILDING
SAN FRANCISCO, CALIFORNIA

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Senator Stevenson
and Members of This Committee:

1. I once wrote that "examining an industry like agriculture with its complexities is in a magnitude which is sort of like someone setting out to explore a mammoth cave using a tiny penlight." I mention this because in preparing a formal statement for this committee I have rediscovered this observation and the feeling that it is impossible to meaningfully examine a single facet of agriculture, such as Migratory Workers or the use of dangerous pesticides, without also attempting to relate these facets, at least briefly, to a 'sketch' of past practices, current practices, trends, attitudes, and opportunities.

As an editor of ORGANIC GARDENING AND FARMING my chief qualifications consist of being a related writer, reader, and observer; for example during the past twelve months I have probably traveled 40,000 miles visiting, perhaps one hundred farms throughout the State of California and the United States. Sometimes visiting the same farm two or three times, and frequently extending the visit overnight and upon one occasion for three days. Since the nature of my visits were related to our Organic Farmers Certification Program which is paid for and conducted by Rodale Press, or to collecting information for articles and editorial background, they may be characterized as 'fact finding' and intensive. Farms visited ranged in size from 1 acre to 35,000 acres and include most of the basic food commodities consumed today.

In addition, and in accordance with a carefully prescribed policy to find and to develop ways and means to assist family farmers and consumers to mutually, and realistically understand problems which are common to both segments, it is my duty to contact, visit, and communicate with packers, distributors, processors, and retailers.

As it should be assumed, my testimony is biased, opposing most of the current agricultural practices followed today, as well as certain numerous, almost countless, practices utilized by conventional food processors and retail chains. As a representative of Rodale Press, most of what I express summarizes more than twenty-five years of publishing a variety of periodicals and books on subjects ranging from nuclear power to ecology, food marketing, gardening and farming, recycling and composting, health, and food technology.

PAST PRACTICES

2. Population densities, limited land, uninterrupted continuity, and an acute understanding of human needs as these needs can be balanced successfully with the immediate environment created eco-agricultural systems and production efficiencies which have neither been duplicated nor even broadly understood in the United States.

In Europe, and in England, balanced ecology, or ecological farming, had already developed to a sophisticated stage by the 17th century. Farms, large and small, were owned and/or operated by extended family arrangements which held to the view that land was an inheritance which included generations of responsibilities to the soil, water, wild life, and to the people involved. In succession, generation by generation, each farm family produced a 'head' who was groomed, or trained, to understand, protect, and if possible, improve the inheritance. The inheritance view might very aptly be described as a long-range overview of the area's agriculture, and the variables produced what can be called the "journeyman farmer", the "master farmer", and the "elite farmer". What was produced generally depended upon what was inherited.

While it is possible to distinguish between an elite farmer and a master farmer in terms of physical factors and opportunities what is meant to be described is a higher level of consciousness. Under the elite farmer all things were accounted for including an amazingly accurate inventory of the farm's ecology. For example, he probably knew, within close numbers, how many wild rabbits inhabited his land, their impact upon his crops, and how many could be taken each year without diminishing the returns. He made the same calculations in determining how much wood could be taken for firewood each year. All living things upon or effecting the farm were identified, their habits understood and balanced against the overview.

He knew what fields produced what best, what portions of his fields were weak, what sections had failed when and probably why. In his mind he carried a long-range weather calendar, including passed along memories of events which occurred during previous generations, consequently changes which could be affected by the environment, such as drainage, new roadways, new cultivation and the like were made carefully, without unnecessary disruption and in consideration of all extremes.

Without benefit of scientific input or modern technology he mastered the practical secrets of fertility, plant and animal breeding ... breeding both plants and animals to meet his needs while remaining consistent with his overview, developing reliable techniques for harvesting and storage and the dependable capacity to supply adequate, even substantial, food year around.

3. While the overview varied with localities, cultures, and each family and family head constant factors were: 1. The farm must be as self-sufficient and self-sustaining as possible. 2. The self-sustenance of the farm, including the soil's fertility, necessary wild life, and so forth, must not be diminished, destroyed, or interrupted by mistakes in judgment, indifference, or negligence. 3. Production and storage must supply, or strive to supply adequate food and clothing , including times of extremes. 4. Necessary maintenance, improvement and production, including harvest, must depend primarily upon the labor contained within the self-sufficiency or, as in some cases, upon additional local help.

Contrary to first impressions, overviews were neither narrow, static, nor limited ... simply very, very careful. Innovation, evolutionary development, and diffusion occurred continually following along well defined, broadly related paths. Abstractions which could not immediately be related to the overview were required to stand the test of time and performance. Possibly, with the exception of the "irrigation sprinkler" and mechanized harvesting, all fundamental tools and concepts used by modern agriculture, including poisonous pesticides, were developed before the Pilgrims touched Plymouth Rock. To my knowledge, no domisticated plant or animal was domesticated after 1900.

4. Independently and centuries before Europe's agricultural development, Asian agriculture had achieved, with variations, systems of peasant farming which were so carefully balanced with the immediate ecology and the faithful return of organic waste that the systems have been described as "almost as permanent as those of the primeval forest" operating with a steady and reliable output, self-sustainingly for four thousand years.

Their continuous, almost perfect conservation did not occur or does not maintain itself incidentally. Considerable skill, perhaps approximating a peasant's equivalent of elite farming was, and is, required to produce their high production efficiencies while maintaining optimum fertility at nearly a "study state". An understanding of the productivity and stability of these remarkable systems of agriculture can be glimpsed from F.H. King's introduction to his book titled FARMERS OF FORTY CENTURIES OR PERMANENT AGRICULTURE IN CHINA, KOREA, AND JAPAN, stating that in 1907 Japan's three main islands maintained a population of 46,977,000 supported by 20,000 square miles of cultivated land, or an area equal to a rectangle 100 miles wide and 200 miles long, with a population rate of 2,349 people per square mile, more than three people per ~~each~~ acre. In addition to the people, each square mile of cultivated land supported 125 working animals, such as horses and cattle, a flock of mixed poultry consisting of an average of 825 birds, and 13 farm animals such as sheep, goats, or swine. Apparently dogs and cats were not counted.

As with Europe, the tendency was, and probably still is, to look upon land as an inheritance which includes a similar but more defined, and perhaps due to very limited land and population densities, more restricted overview. Until the middle of this century most of Asia's small plots were owned and operated by extended family arrangements, and a family 'head' who managed the farm.

According to Dr. Kusum Nair, agricultural expert with the Center for Asian Studies at Michigan State University, Mainland China has reversed its collective policies for Mailand China's agriculture and has returned, at least in defacto, to the traditional overview, and to organic farming. Dr. Nair is advocating, contrary to claims heralding the "Green Revolution", that Asians must improve their agricultural output by developing organic farming methods.

The term organic as it is related to agricultural methods was coined by J.I. Rodale and largely proposes the adoption of methods, and the overview developed by the Asians. Since this committee will devote much of its attention to suggestions for land reform in the United States and arguments weighing the merits of large-scale corporate farming as opposed to small scale family farming may it be suggested that the observations contained within the works of King's FORTY CENTURIES OR PERMANENT AGRICULTURE IN CHINA, KOREA, AND JAPAN and Sir Albert Howard's works, particularly AN AGRICULTURAL TESTAMENT, be examined with the view that they can provide factual information in determining what form and size of agriculture a land reform could realistically encourage.

5. A number of cultures in other times and other parts of our planet have developed highly efficient self-sustaining systems of agriculture. In the Philippines, for example; and in terms of efficient production on a ratio measuring yield volumes per given areas of land on a sustained self-sustaining basis, no culture, including the United States, has developed systems and efficiencies which exceed those developed by the Incas or the Aztecs.

By moving huge boulders and carving terraces, sometimes as narrow as ten feet, out of living rock mountains the Incas created a system of dependable efficiencies exceeded only by the Aztecs. Incorporating an extremely sophisticated system of controlled irrigation which concentrated falling rain without dams and extensive canal systems, they reached a high level of ecological awareness. For example, wild life, such as deer, were taken for food and hides by conducting periodic drives and culling the animals according to a level where the annual return would not be diminished. Obviously the Incas also managed their food production according to a long-range overview, and until Spanish conquerors destroyed their civilization they flourished.

In Mexico, the Aztecs developed a self-sustaining agricultural efficiency capable of producing up to seven crops per year, two of which were corn, or maize. The system depended upon relatively very small plots of land which extended out and were irrigated by a shallow lake in the area where Mexico City is situated today. Each plot was owned and operated by an extended family arrangement, managed by an overview which included the view that the land was an inheritance. The rise and maintenance of the Aztec power can be related to this system of agriculture which unfortunately was destroyed when the Spanish drained the lake and conquered the Aztecs.

6. The development of agriculture, and the use of agricultural lands in the United States has been, in the main, developed without a coherent, viable overview capable of relating to a long-range impact upon the environment, the farm itself, or upon tomorrow's economics. It developed by functioning largely from an economic view, viewing land as a property, and until in recent years operating proprimarily on a semi-extended family arrangement where income producing property may be passed along through inheritance.

With the exception of the Dutch immigrants who settled along the Hudson and in the Pennsylvania area and scattered individuals from various counties, the early settlers in this country generally lacked for farming skills and the desire or the capacity to think in terms of a permanent agricultural system. There was, seemingly, unlimited land to the south and to the west and as farms "wore out" farmers simply moved on to "virgin soil", creating the migratory farmer and attitudes which still persist.

Superstitions, misconceptions, appalling ignorance, faith in hard work, and stubborness dominated the formation of America's agricultural system. Infusion, and trial and error gradually produced some skills or a pattern of failure. The Civil War interrupted and seriously retarded the development of a constructive agriculture, particularly in the South. The Midwest, and eventually the West, began to fill with migrating farmers and immigrants from Europe. A good portion of these later immigrants were skilled in farm work and many may be described as journeymen farmers. Their skills gradually diffused, and were adopted, at least in part, by migratory farmers. Attitudes mingled and merged and as the North Americans began to realize that the nation's boundaries were limited farms and communities began to stabilize.

7. One early attitude which would be of particular interest to this committee might be described as the 'get bigger syndrome'. Abundant land and the desire to duplicate certain land ideas which were brought over from Europe and England created the view where big was equated with quality and success depended upon being large. Consequently there was a tendency to 'stake out', or to acquire more land than could effectively be farmed with limited labor. Volume was substituted for a skilled understanding of the soil's capacity to produce sustainingly. Conservation was ignored as farmers literally worked themselves and their families to exhaustion and into failures attempting to work farms far too big for them.

Too often, "successful" farmers were those who could substitute the ability to manage, to organize, to acquire additional labor, for a real understanding of farming including an overview which understood the long-range impact of certain types of farming upon the environment and upon the country. The 'get bigger' syndrome was reinforced... A pattern was established and the dream jelled where the idea has been to acquire more labor, or more something, capable of producing from more acres.

As the members of this committee would know very well, early legislation recognized that land grabs and expansion patterns operated against the common opportunity and against the best interest of the nation, and therefore acts such as the Homestead Act and the Reclamation Act were established to limit size and absentee ownership. Through the years the intent and effective application of both measures have been negated or circumvented.

8. By the early 1900's and with the remarkable virgin fertility of our land continuing to hold, the general level of farming skill had improved considerably; farmers were also learning to manage their holdings more efficiently. Real and artificially induced problems of distribution continued to reduce or limit their profits, but an institution of family farmers had established and farmers

were beginning to look inward for better skills and an improved understanding of the potential of their farms. The First World War interrupted and permanently altered this development. Emergencies created profitable opportunities. Management farming expanded. Restrictions were suspended; absentee ownership encouraged; and the 'agricultural industry' was introduced.

Reduced exports, the crash of 1929 and the depression which followed produced a situation where enormous quantities of food and fiber abruptly became "farm surpluses". Unable to sell their commodities at a price exceeding production cost, farmers went bankrupt, farms went fallow, land prices collapsed, and farmers began migrating to the cities. Those who stayed behind scratched things together as best they could, adjusted to the new market, and hoped that the newly formed United States Department of Agriculture was going to do something to help the small farmer.

National Defense and our entrance into World War II created a sudden demand for large quantities of food and fiber. Prices rose rapidly. Wheat reached a price which topped $3.00 a bushel; flax hit $7.00; and some farmers with large land holdings earned the, then astronomical, 'high' of a million dollars per crop. Acres meant more bushels; land was still cheap and farmers began increasing their holdings, buying and leasing land vacated by those who had migrated to the cities. Fruit and vegetable growers in California, Arizona, Texas, and Florida expanded. More labor was imported from Mexico, or came in illegally, and the reservoir of migratory workers increased.

Corporate farming and absentee farm management flourished. The percentage of importations from other countries increased while correspondingly the percentage of exportations from the United States decreased. Surpluses mounted. As subsidies fell below parity the tendency was to increase holdings in order to retain or to increase incomes. Price support and surplus control programs were refined, focusing upon limiting the legal, marketable production per acre. New efficiencies were established. Small farmers were told to get bigger or they would probably have to get out.

9. In 1933, Congress passed the Agricultural Adjustment Act and the bill was signed into law by President Franklin D. Roosevelt. Originally described as an emergency measure, the act itself provides the means to be discontinued by the President when he finds that the national emergency relative to agriculture has ended.

Establishing federal regulation of U.S. farms for the first time the act was passed to adjust "overproduction", to ease the burden of surplus crops and swelling warehouses, and to increase the farmer's income. According to a 1938 radio address by H.R. Tolley, Agricultural Adjustment Act Administrator, "The experiences of the twenties and thirties taught us that it is necessary to be able to put the brakes on farm production." Retrospect indicates a growing impression that farm surpluses were produced, at least as much, by sluggish or mismanaged distribution.

The point has also been made by Dan P. Van Gorder in ILL FARES THE LAND that in the year 1922, "our farms, for the time in our history, failed to produce enough food to supply export demands and domestic requirements." It is also his contention that surplus statistics are misleading, "Our food resources were not measured in terms of supplies per capita of total population."

The possibility which is emphasized here is that surplus statistics may be misleading, and that whatever, federal control over farm production was enacted to reduce a situation alarmingly described as a "crushing overproduction". By federal proclamation, small family farmers - and very small relative to today's farms, utilizing horses and mules, and extremely limited unsophisticated mechanical equipment, natural fertilizers, limited irrigation, and very few pesticides, if any, were, accordingly, producing more food and fiber than the nation could consume or export.

Seemingly, federal regulation would act to restrict or to reduce production by limiting acreages, or at least, by encouraging smaller farmers possibly by establishing subsidies which diminish rapidly as acreages exceed minimal levels. Dramatically, millions of meat animals were destroyed, or were supposed to be destroyed, as federal price support programs were launched. A most remarkable paradox has followed where in spite of increasing surpluses and periodic cries of alarm imports to this country have increased and the United States Department of Agriculture has spent billions of dollars researching and promoting methods and materials, hybrid seed and etc. to "increase production".

"Increased production" has been accomplished with programs and research almost entirely designed to promote larger holdings. Market development, and distribution utilizing USDA inspectings, the law, and powers to severely penalize have been used to develop and maintain volume monopolies and "price controls" which operate specifically against the potential for profitable production from small acreages. Market orders, state and federal, and "quality" specifications have been designed which limit the "marketable quality" that may be harvested per acre, without limiting acreage. Other programs limit, by law, the production which can be produced on specific acreages.

10. Dovetailing with programs sponsored by the USDA, manufacturers of agricultural equipment and agricultural chemicals have successfully sold in successive generating spirals larger and larger volumes of chemicals, and bigger and bigger equipment, each successive step developing larger holdings and compelling farmers to increase their acreage or eventually migrate to the cities.

Methods, chemicals and equipment have been introduced without adequate, or even adequate attempts to understand their immediate, and long-range impact upon conservation and the environment. Large acreages of productive land have been permanently destroyed through erosion; even larger areas are now eroding seriously. Unestimable millions of tons of humus have been mined from the soil as a direct result of farming larger holdings with bigger equipment and synthetic fertilizers which add nothing to soil's fertility or tilth. Vast areas, particularly in southern states are now severely crippled by their loss of humus and by methods and materials which have produced large-scale conditions of hardpan. Other regions, including parts of California, are beginning to experience dangerous levels of sodium build-up due to salt fertilizers.

For facts pertaining to soil conservation and the current status of the nation's soil, this committee would find the 1971 report published by the U.S. Soil Conservation Service helpful. Dr. Barry Commoner's book THE CLOSING CIRCLE amply relates the need for an agricultural system with an overview that will rebuild and maintain a safe percentage of humus in the soil. "Reshaping the Soil", MICHIGAN SCIENCE IN ACTION NO.5, Michigan State University, 1969, will provide useful information.

Increasingly, environmental experts are willing to identify the agricultural practices developed over the past 35 years as the major contributor to pollution. Water pollution due to nitrogen compounds has been recognized and largely accepted, however the extent is yet to be seen. The annual estimated loss of the topsoil which is choking rivers and reservoirs and washing out to sea is amplified by the annual cost of dredging reservoirs and waterways. The astounding rise in the volume of agricultural contaminants introduced into our environment from 1940 to 1970 is traced by Dr. Barry Commoner in his book, THE CLOSING CIRCLE.

We are only now beginning to realize the fantastic impact which large-scale agricultural practices have had upon our climate. Extensive systems of dams, irrigation canals, and large irrigated acreages have already affected areas such as the San Joaquin Valley in California. In a recent three week meeting, described as the "Study of Man's Impact on Climate", sponsored by the Massachusetts Institute of Technology and conducted in Stockholm, Sweden, 30 of the world's leading scientists representing 14 countries cited the burning of waste crops and vegetation, overgrazing, dust storms resulting from overgrazing, deforestation, irrigation of arid areas, dams, man made lakes, diversion of rivers from one region to another, and cloud seeding as capable of creating changes which "could have serious regional and even global repercussions."

11. During the early forties a number of Americans, academicians, businessmen, farmers, publishers, and the like, alarmed with the destructive trend set by the United States Department of Agriculture, sought to establish an overview which would redirect th nation's agriculture. Calling themselves The New Agriculturists and/or The

Friends of the Land they published a number of books and periodicals which describe current trends, and describe alternative methods and materials, citing demonstrations and examples, giving statistics, and seeking for the first time in this country to promote the concept of the elite farmer, or at least an agricultural system based upon a firm foundation of master farmers operating from an overview which would protect our soil, and environment, and our health.

Apparently the concept was too much before the circumstances and farmers largely failed to respond, and consumers failed to understand the relation of safe, nutritious food to farming methods. The movement is significant to this committee on two counts: 1. An alternative agriculture was presented and demonstrated which would have enabled smaller farmers to operate profitably on a nearly self-sustaining basis. 2. It called to attention then that federal regulation was sponsoring and pursuing food producing practices which ignored nutrition and was, in fact, sponsoring methods and materials which would produce a health hazard.

12. Perhaps in response, and belatedly responding to a USDA survey taken in the mid-thirties which indicated that one-third of the nation's people were "ill-fed" ... and casting numerous peculiar questions upon the 1933 USDA position that the nation was suffering from overproduction,.. white flour and bread was "enriched", by law in the early 40's, with B vitamin and iron. With this single exception, the USDA and related agencies have failed to pursue and to develop methods and materials which would improve, or at least guarantee a high level of necessary vitamins, trace minerals, and the necessary amino acids.

Since this committee is considering proposals for land reform and therefore alternatives to our current agriculture it may wish to examine neutral data, capable of supplying comprehensive information in scientific detail, of a comparative study conducted continuously over a period of several years, If so, it may wish to become familiar with the Haughley Experiment which is conducted by the Soil Association in Haughley, England.

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Soil Association publishes journals which describe these results as of to date. Utilizing organic methods it is possible to maintain a high level of fertility with minimal applications of organic matter. 2. Yields are less than the field which received applications of commercial type fertilizer. 3. The field receiving commercial fertilizers became addicted, and yields fell drastically without continuous applications. 4. In the experiment equal herds of milk cattle are held permanently and separately in both organic and not-organic fields. Organic cows produce greater volumes and more butterfat on the smaller organic yield. 5. As generations of cattle are produced (same bull for both herds) cattle feeding on commercial fertilized field incur more illness, and require more veterinary attention.

13. By 1933 and until World War II, farmers supplying the fresh market had reached a very high degree of harvesting and handling skill. Distribution was much more diverse and competitive, and seemingly more capable of handling fresh produce rapidly without extensive systems of refrigerated storage and long delays of several days, or even several weeks. Wholesale produce markets, which were usually a conglomeration of independant competitors, were geared to handle transactions very quickly; sometimes farmers would unload only a few hours before retailers were there to load. Markets were more accessible, either directly, or through shippers, consequently consumers, particularly on the coast and in major cities, enjoyed a greater variety and quality selection of mature fresh fruits and vegetables. Quality control was exercized by wholesalers, shippers, retailers, and largely by the consumers themselves. Grading standards emerged relative to size, shape, taste and freshness which farmers understood very well and they jealously guarded their reputations for providing a top pack and/or packs which were accurately labeled. Packs labeled otherwise were rejected and the farmers were not paid.

It was not unusual to find three and even four grades of the same produce displayed in the same produce department. The system supplied consumers with a multiple choice in terms of real quality at whichever price they wanted to pay, and farmers were able to sell most of their crops, honestly, at prices corresponding to grades

Hundreds of thousands of small farmers, primarily using family or local labor, were able to earn an adequate living on three, four or more acres, depending upon the location and climate.

"Cold storage" was not a well established technique, and not too popular; the fresh produce market operated, in the main, strictly upon supply and demand. The idea of an "overproduction" in any alarming quantity is difficult to see at this time, however surplus controls and price support programs were established, and state and federal codes were written which regulate the flow of fresh produce by regulating the "marketable quality" that can be shipped out of the county or the state. The system of marketable quality acts to limit the profitable production per acre, without limiting the acreage which can be planted. It is reinforced by inspectors, state and federal, agricultural, health, and FDA, who have "red-tagging" powers, which means that when a crop or a shipment is "red-tagged" it may not be sold.

Marketable quality relates to the term "quality standards" or to specifications which specify appearances, that is, minimum appearances. Which means, for example, that a carrot must be so long, but not longer, and the diameter must be so much, but not less nor not more ... the diameter of an apple must be so big, but not less,.. a small orange may not be packed with a large orange; large heads of lettuce may not be packed with small heads of lettuce and so on.

Quality standards will also specify insect tolerances, generally meaning the percentage of insects which may be present, or the percentage of insect bites which can be present on fresh produce. Tolerances are generally determined upon inspection by examining a percentage of the shipment. The legal tolerances which have been established through the years are for the most part mandatory requirements to use pesticides. Certain minimum size standards, especially for peaches, nectarines, and grapes are difficult to obtain in any volume without stimulants and synthetic fertilizers.

Other quality specifications specify minimum maturities, a specification which through the years has largely deteriorated. Artificial dyes, such as dyeing oranges or nuts, and techniques for sweating color into green tangerines are not restricted. Packing specifications, specifying size and type of packing containers, have become quite specific and are becoming more so.

Quality standards were established in a number of ways. They may simply have been written into the agricultural code, state or federal, defined by a district agricultural advisory board, or established through a state or federal market order. The practice which has emerged is that district agricultural boards will tend to represent the volume growers. Market orders are commonly written specifying certain market controlling decisions by 51 percent of the volume. Often, tentative codes are written and circulated among grower's associations, food processors and etc., and volume producers before enactment into law.

CURRENT PRACTICES

14. The "Market" is a term which seems to be describing what consumers are buying, and while it does reflect what is "moving" it tends to mean what retailers buy. While consumers are provided choices in labeling, brand X over brand Y, modern merchandizing techniques are calculated to limit their choices by size, by price, or by volume. For example, standard quality oranges will probably be offered in two choices: in bulk at a slightly higher price per pound, or in ten pound bags slightly less than the bulk oranges.

Meat is offered in a variety of cuts, usually described as "choice"; consumers have no other choice, and no information which will help them to know whether it was grown in a feed lot or grass fed. Every year commodities are available on farms, and in qualities which consumers would buy, or might wish to buy if retailers would provide the choice.

Frequently, in fact more and more, farmers would like to supply the real quality and variety which everyone knows that consumers would like, such as maturity, but the market price remains the same and perhaps less. There is little or no profit incentive for real quality or for extra risk. The "Market" dominates, and often the size or type of packing crate is more important than the quality of the product within.

By almost absolute necessity farmers adhere rigidly to those specifications which they know to be 'sensitive', particularly small farmers who have been red-tagged far more often than large growers; therefore it is said with some truth that small farmers tend to use more pesticides than do large growers. Frequently marketing channels for small farmers are limited to one processor or shipper, or to direct marketing from the farm. Increasingly where farmers are limited to one marketing channel they are also denied, or it seems that they are denied, their full share of marketable quality. For example small apple and orange growers report that consistently high ratios of their fruit are graded into processing,.. at a price substantially below their operating cost.

The legal inability to ship mixed sizes and the high cost of setting up sorting and packing facilities limits such farmers to whatever market they have, for whatever price for however long they can hold out. Frequently when packing container requirements are too rigid, probably because the market has specified accordingly, they are simply out of that market. At other times their small volume prohibits them from purchasing containers at prices which will enable them to realize a personal profit. At times, the packing container is worth more than the product packed.

There are open Wholesale Markets, distributors which are primarily located in the major cities, for example in California, most of them are located in San Francisco and Los Angeles. Farmers and shippers may ship to these distributors who supply independent retailers and small supermarket chains in the state of California and throughout the nation. The produce which is shipped must meet state and federal codes. Produce distributors buy some produce; the balance is "handled". Wholesale distributors charge farmers 20 to 27 percent of the wholesale price for handling. Acceptance of a shipment is not a guarantee that the produce will be sold. Market access is also limited to wholesalers, competition is considerable, frozen fruits and vegetables have drastically reduced fresh retail sales. The margin is narrow, and many distributors operate at a loss or very close to a loss.

Deducting 20 to 27 percent from the wholesale price, adding packing and container cost plus the spiralling, astronomical cost of transportation prevents most small farmers from profitably reaching markets, particularly in the peak of the season. The limitation produces a situation where, for example, semi-ripe immature peaches or apricots will be selling in a Los Angeles supermarket for 33¢ to 35¢ per pound while growers in the San Joaquin Valley and in other areas will be experiencing a "surplus crop". The practice of harvesting immature fruit early in the season in order to take advantage of the higher prices floods the market with sour fruit and acts to depress sales for the balance of the season. Growers who wait for maturity might lose substantially, and as already stated, market men will not pay more or guarantee better prices for mature food.

Perhaps the California seedless table grape emphasizes the common dilemma best. This is primarily due to immature harvesting and the practice of treating grapes with a chemical hormone which increases size and yield but not the flavor and produces a sour, watery grape. The grapes are large and deceptively attractive, and handle especially well. In California prices range in the 29¢ per pound area during peak season and movement is limited. Slow movement affects the grower and the consumer more than it affects the supermarket where the table grape section is simply, and now, a small portion of the produce department, and where specifications specify fruit which will handle with the least amount of care and loss. Expert information, relative to actual sugar content in today's grape and a study of current practices and their diminishing effect upon growers could be supplied by Dr. Klayton Nelson, professor of viticulture, U.C. Davis, and Keene Larson of Coachella Valley.

Sometimes transportation costs will be the same for a short distance as it will be for a long distance by a different carrier. For example, it may cost a grower $1.00 per crate to ship lettuce crates (24 to each crate) three hundred miles by common carrier. The wholesale market price for lettuce ranges from $1.50 per crate to an average of $1.75 to a high of $2.25. The current average cost to ship a case of 48 oz. juice cans from California to New York is $1.00. Instate shipping ranges form 4¢ to 8¢ per pound including weight of the crate. Interstate shipping ranges from 4¢ to 8¢

per pound. Private transportation systems and enormous volumes can either reduce cost or realize a profit on volume. Smaller growers who ship in one or two carload quantities have difficulty obtaining sufficient profit after transportation cost. Rails are often unavailable, and delivery unpredictable. Price of shipping by truck varies, ranging from $900 per load to $1800 per load, depending on availability of rail cars.

Transportation difficulties and fluctuating prices are, of course, old problems for farmers. New problems which are being scheduled to occur or being prepared in the Midwest, for example, concern the position that the traditional grain elevators in each little town along a railway is inefficient and that a system of new, larger elevators should be constructed at more efficient 'spacings'. Currently farmers who are attempting to develop their own direct marketing to mills and etc. find that rail cost exceeds trucking, and that trucking costs are restrictive in loads less than 40,000 pounds.

Generally speaking any distribution which falls in the category out of an established high volume pattern will be premium and perhaps defeating. Farmers, as an example, who would prefer to use natural fertilizers and soil conditioners such as dolomite, rock minerals, manures and so forth frequently decide that the transportation cost cannot realistically be related to their production.

It is not likely that these and other transportation problems are unknown to the United States Department of Agriculture, and the seemingly obvious view that small farmers could be helped considerably if certain rates were restored and perhaps controlled, and if perhaps transportation subsidies would be proposed that would bear directly upon farmers with smaller productions. If the view expressed in a conversation with Frederick J. Poats of the USDA, Washington D.C. reflects the official position then 'officially' smaller, and not so small farmers have been written out of agriculture, now, because "they cannot operate efficiently because they are unable to produce in volumes which will produce a profit over their transportation cost."

15. The inability, lack of experience and inclination on the part of farmers, especially small farmers, to cope with official language and paper work details places them in the particularly vulnerable position where "red tape" and complex, confusing, difficult, or even awkward to obtain information tends to 'grind' them down and out of farming. Price support programs and District Agricultural Advisory Boards frequently require meticulous records of sales and production be maintained and reported regularly to enable the Board to control movement and regulate prices accordingly. Sometimes the records are extremely difficult for a farmer to understand and often requires considerable time to do; a good example of this must be the Advisory Board which controls the Date industry in the State of California ... and industry which according to our reports is now owned and actually controlled by Tenneco.

Large growers can, of course, afford to hire capable bookkeepers and people who understand the complexities of state and federal agricultural codes, taxes, and so forth. Consequently they have a clear understanding of when to 'lose' and when to profit. In fact it is said today that the efficient farmer makes most of his money sitting at his desk. Small farmers are confused. They have a difficult time struggling through the "paper work" and a tendency to rely upon the wrong information. Letters and interviews reveal that it is a common practice to mislead farmers regarding regulations.. processors, shippers, and co-ops often tend to mix company policy with government or state regulations and many farmers operate less profitably by abiding with what they believe to be the law.

Few smaller farmers have a copy of state or federal codes; even fewer would have the 'book tenacity' to understand or the confidence to challenge if they did understand what they were reading. The language, particularly in the California code may be equivocal, frequently tracing down to a Director's decision. The 1969 California Code, for example, contains 1001 pages and costs $15.00 per copy, upon written request or upon request in person, in Sacramento.

While small growers stoically accept red-tagging as final, or in most cases. Large growers are more apt to seek an adjustment.

An excellent example of this possibility was demonstrated at a convention of the Produce, Packaging, and Marketing Association when two boxes of grapes were presented side by side, one had passed the test for U.S. NO I ... meaning high grade of sweetness, while the other box had been rejected by federal-state inspectors but, carrying a stamp almost identical to the other box it went to market. The detectable difference depended upon someones understanding the key to the code used in the stamps.

16. Small farmers seldom have political power, individually or as a group of small farmers. In several states typical farmers do enjoy some political influence and probably in all of the states large producers and large farmers' organizations have some influence at the state level. At the national level farmers, and farmers' organizations are not believed to be too effective against the 200 Washington lobbyists which represent the food industry. The placement of food processing plants throughout the United States provides the food industry with advantageous opportunities to appeal directly to congressmen nation-wide. Where a rural congressman elects to represent the farmer's point of view, there will probably be an urban congressman with a different constituency. Since consumers are not represented they must accept the policies and legislation which affects them.

17. Vertical integrated agriculture is an economic concept which means, or did mean, that farmers would develop their raw commodities as far up the ladder to the consumers as possible and thereby increase their possibility for profit. They might do this individually or as a co-operative. Currently a number of individual farmers, particularly organic farmers, are in various stages of vertical development, and there are some co-op's which use the concept, somewhat minimally. Unfortunately the concept combined with advantageous taxes, land speculation, and the success of Sunkist Growers Inc. and nationally advertised produce, has become the magic lodestone which is attracting super non-farming corporations to agriculture.

Sunkist Growers Inc., Diamond Walnut, and United Fruit's Chaquita Brand bananas have demonstrated that produce can be nationally advertized and sold by brand names, verifying vertically integrated possibilities on a mammoth scale and the exclusive opportunity for corporations big enough to make the entry.

Since it is obvious that this committee has access to sources for detailed information pertaining to 'Supercorporative Agriculture", private and corporate land speculation and development, supercorporate market control, corporate contracts for farmers, tax advantages and the subsidies received by large corporations, and banking practices relative to farmers specific, testimony in these areas is omitted.

TRENDS

18. The nation under the guiding hand of the USDA, the FDA, related state and federal agencies, and the food industry is moving fast towards a totally integrated computerized industry where more than ever, unless checked by an alternative, Americans will eat what has been set before them. Instant calculations of all available commodities, prices, packaging, transportation and so forth will determine what food, who will get, and where. Profit earnings of fractions of a cent will weigh more in the rapid determination than quality, including consumer sought quality such as flavor, freshness, and nutrition.

By 1980 perhaps fewer than 50 gigantic 'cooks' will be preparing as much as 80 percent of the food which will be served in institutions ... hospitals, schools, cafeterias, restaurants and so forth. Food technologists and super dietitians will prepare menus for millions as computers determine fractional cost differences and decide what will be for dinner. Choice selections will be narrowed as alternative availabilities are eliminated. Integrated steps in processing will supply food preparers and Americans with more overly processed foods than ever. "Fresh" will become a word describing food which has not been frozen, canned, preserved, or dehydrated, and meaningless in context with any understanding of just harvested.

Consumers will have less voice, if possible, in determining what chemicals will be added to what foods. In prepared foods sold in institutions they will be denied (as they are today) access to information enabling them to know the full content of foods served, and whether processing and preparation has been entirely safe.

If the current trend into superagriculture is unchecked, the current, and official, misleading projection suggesting that by 1980 1.9 million farms will supply the nation's food will be more accurately stated as less than one million, and moving rapidly towards a situation where less than 500,000 farmers working under contract, or as tenant farmers for less than 1000 gigantic farm corporations will produce 90 percent of the food consumed.

U.S. Citizens will be denied physical access to large areas of land, possibly portions approximating the size of counties, as existing roads will be removed or blocked to provide massive areas of land for crop production. Recreation in the country will be more limited and specified. It is likely that future recreation areas will be developed and operated by corporate farmers themselves. The re-emergence of the company town is probable, and the creation of the corporately owned city is a not too distant possibility.

Markets will continue to be lost to farmers and growers, large and larger, over the next ten years, as accelerating imports from countries with cheap labor, tax advantages, and no environmental control pour in. U.S. imports will be, and are, calculated corporately on an international basis and will continue for as long as computer readings are favorable. The cost-profit squeeze which is eliminating American farmers will be applied to foreign agriculture as their dependence upon U.S. markets increases.

Immediately, farmers are being told that the profit squeeze will level out as they intensify their yields per acre and increase acreages to efficient levels. They are being prodded into folly as they rush into close intensified cropping, close cropping equipment, considerably greater volumes of manufactured fertilizers and pesticides, and automatic harvesting equipment. They simply cannot get big enough, fast enough. They are in effect being encouraged to exhaust themselves sooner.

Quality standards, and particularly costly changes in container specifications will continue to eliminate gains and immediate markets. Manipulated surpluses ... or marketable commodities will swamp farmers, already smothered in debts incurred attempting to get bigger. More farmers will simply close their doors and walk away. By 1980 or shortly thereafter, we will probably witness a mass walk out, as independent citrus growers in Florida and California realize that they have been encouraged to overplant themselves into a surplus which will begin to engulf them by 1975. Sunkist Growers Inc., that is, the top "co-operative" level of major private corporations and farmer-owned processors, Coca-Cola, and Libby, McNeill & Libby will, in probability, 'pick up the pieces'. Relative to farmers operating on the verge of walking out and the many facet binds which continue to plague them this committee may wish to contact Richard Wilson, rancher, in Cavelo, California.

It is almost needless to point out that trends indicate that pesticides will be used in increasing volumes. In 1971, in spite of growing public concern the use of pesticides continued to increase, and organic phosphates, such as malathion for example, described as breaking down rapidly are demonstrating a remarkable capacity for remaining persistently in food supplies. It is not difficult to predict the day when environmentalists will be told in more emphatic terms, to be quiet.

19. Running counter to current food production, processing, and marketing practices, a major trend has developed among consumers and farmers and particularly among young people for organically-grown foods which have been naturally processed. As more and more farmers recognize that crops can and are being produced profitably without agricultural chemicals they are altering their method and moving into organic production. Indications are easy to gather which indicate that possibly one fourth or more... of our nation's farmers are beginning to view the organic market as their only alternative for survival. U.C. California Extension employees report consmant and growing inquiries for specific information relative to organic methods. Farm agents everywhere report the same. And grudgingly,

and alarmingly the California Department of Agriculture reports the same also.

Our finding, through direct contact and correspondence, reveals that large sections of farmers are now preparing to or want to prepare to begin organic production. The recent entry of the National Farmers Organization into the organic market demonstrates this point. Currently, several organic farmer's groups are forming independently in various parts of the nation. For example, Deaf Smith County, Texas now has 50,000 acres under, or in preparation to be put under organic production. Farmers there are estimating that 80 percent of the county's farmers will be organic by 1980.

In the county just north of Deaf Smith another group of farmers are converting to organic methods. Of significance to this committee is the interesting fact that while organic farmers in Deaf Smith are receiving premium of 15%, the primary thrust into organic farming is due to the destructive effect of, what is called "modern agriculture", upon the soil, operating cost, and yields.

In Washington State a similar group of farmers raising commodities ranging through varieties of fruits and vegetables, and beef are completing plans which will include their own canning of organically-grown food. A development is now occurring in North Dakota which promises to eliminate once and for all the synthetic argument that herbicides and synthesized fertilizers are efficient or necessary in order to raise grains. In Northern California, in contrast to what was said to be impossible, the Lundberg Brothers have produced organically-grown rice year after year, have expanded organic production into their neighbor's fields, and have a waiting list of farmers wanting to 'go organic'.

It is, somewhat redundant to go on itemizing and listing organic farmers. Rodale Press has been listing and publishing their names and locations for more than 25 years. Currently our backlog of applications from farmers who are requesting certification, willing to meet any method of inspection and analysis, is running into the hundreds and promises shortly to reach into several thousands. Organic farmers are reporting almost impossible mail, sometimes 25 letters per day, and constant streams of visitors seeking information relating to methods and the market. The Canadian government is now exploring and preparing information on organic farming and marketing for Canadian farmers.

In the trend to more organic farming, farmers are generally realizing from 5% to 20% more for their commodities, however paralleling economic possibilities is an increasing understanding of what consumers want them to produce and how. There is, also, almost an awakening to the realization that they have been using methods and materials which are destructive to the environment and hazardous to our health. There are organic farmers, for example, who sell their commodities at convention prices to the conventional market without labeling as organic, as a matter of personal principle. Perhaps a good example of such a farmer would be Russel Wolter in Carmel, California.

At this point it seems important to mention that there are thousands of farmers who have farmed organically up to twenty five years and more as a matter of conviction, have related to an overview which includes safe and healthier food production, an uncontaminated environment, and a responsibility to pass along better land than they received,.. and have marketed conventionally without an extra premium income for organically-grown quality..

For example, in the midst of an industry where experts positively claim that production and processing is impossible, or if possible then only with unacceptable reductions in quality, without the use of several varieties of pesticides, herbicides, and manufactured fertilizers, Thomas Lukes of Kingsburg, California has pro- between 15 to 22 tons of the highest quality raisins on 11½ acres of land without manufactured fertilizers, herbicides, sulfur, or pesticides. His raisins are sold to a conventional packer.

Mr. Lukes is rare in his industry, but not unique; he presents, however, a view, or a trend which is expanding either because of greater consumer demand or because farmers like Mr. Lukes are seeking better methods. In 1971 and under a contract to an organic distributor, the Bonner Packing Company in Fresno, California, working with independent growers and innovative new methods produced 900,000 lbs. of raisins without using manufactured fertilizers, herbicides, or pesticides, either during crop production, or during drying. This committee might also wish, relative to organic farming possibilities for family farmers, to consider the farming practices of the Amish, or Mennonite groups which are scattered in various parts of the United States and Canada.

At the consumer level the trend is developing a new degree of sophisticated awareness motivated by an alarmed concern for safer, healthier food, an environment contaminated with agricultural chemicals, and a backbone of an estimated two million hard-core organic gardeners, and possibly another three million in various organic stages who do know that there is a difference. The 2 to 5 million gardeners probably give away large quantities of food to another 10 to 15 million people who do know, therefore, that food can be produced with more natural flavor and nutrition.

The trend is accelerating by the stunning realization that malnutrition among the best fed is increasing, falling below 1950 standards, and a mortality rate which has dropped our national percentage from 11th to 36th. The high rate of cancer combined with the continuing use of known carcenogenic agents, pesticides, hormones and the like is driving consumers to locate food which they know to be as free as possible of agricultural and processing chemicals.

Poor quality, lack of freshness, bland flavorless food has boomed direct marketing. Sales direct from farm and roadside stands have increased as much as 700 percent in some areas. The growth has been so phenomenal that nearly every agriculturally related university or college in the United States has conducted independent studies and several have published comprehensive reports. To mention a few: Rutgers University, University of Delaware, University of Illinois, and Virginia Polytechnic Institute.

The studies taken altogether combine to produce interesting constants which correlate with our own findings: Housewives are willing to drive extra miles each week, and entire families are willing to drive long distances to 'pick their own', because 1. Better quality in terms of natural flavor, freshness, and if possible without sprays. 2. Price is not the overriding factor; price complaints are described when A the price is too high for the quality, B the price is too high for the volume purchased.

In October of 1971 the Alan Berni Corporation conducted and published an independent exploratory examination of the trend toward organically-grown naturally processed foods which the committee may find helpful. Utilizing personal "focused depth interviews", of family housewives living in their own households, in Stamford, Conneticut, Charlotte, North Carolina, and Los Angeles, California. The study concludes with the judgment that the food industry should communicate and "respond as rapidly as possible to the new demands."

Our own studies indicate that corporate agriculture and many of the food processors are likely to explore token possibilities, re-emphasizing in advertising, in labeling, and in merchandizing techniques, and utilizing 'low profile' pressure before the majority will attempt to move sincerely to fill the demand.

ATTITUDES

19. The United States Department of Agriculture and related agencies have been remarkably effective in promoting attitudes which have been largely accepted without examination, or even adequate information, and without proper questioning on the part of our universities and farmers themselves. Much of this has to do with 'team playing' or simply carrying someone else's ball when it is advantageous, sort of 'you scratch my chemical back and I'll rub your research grant'. At the same time, it is difficult to visualize a flourishing agricultural school flourishing, and with esteem, while maintaining attitudes contrary to the USDA. A good deal of their success has had to do with scientific implications, trigger slogans and confusion. No small degree of success can be attributed to the Department's access to public media for the opportunity to dispense verbal punishment for attitudes which fail to comply.

In fact, one statement can characterize the official administrative position which has persisted unswervingly for nearly 39 years: There shall be one type of agriculture; it shall be chemical, and operated by one integrated system of very large producers-marketers.

The sudden reshaping of our food supply cannot be viewed as entirely evolutionary when compared to "enthusiatic progress prejections" such as was recently described by Dr. George W. Irving, Jr., research administrator of the United States Department of Agriculture.

"Agriculture will be highly specialized and farms in one area will concentrate on growing oranges, those in another area tomatoes, in another potatoes — capitalizing on the competitive advantages soil or climate give for a particular crop.

"Fields will be larger, with fewer trees, hedges and roadways. Machines will be bigger and more powerful and able to do more operations in fewer trips across the land. They'll be automated, even radio controlled, with close circuit T.V. to let an operator sitting on a porch monitor what is going on.

"It isn't difficult to visualize agricultural plots several miles long and a hundred feet wide. Equipment straddling the strip will roll on tracks or paved runways, swinging around at the end to work the adjacent plot without a wheel-touch compacting the soil in cultivated areas.

"Weather control may tame hailstorm and tornado dangers. Atomic energy may supply power to level hills or provide irrigation water from the sea. Satellites and airplanes overhead will transmit readings enabling a farmer to spot diseases breaking out in his crops more surely than he could by walking through the fields.

"Sensors buried in the soil will tell him when his plants need watering, and automated irrigation systems will bring it to them. He may have at hand chemical means of speeding or slowing crop growth to bring harvests to market at optimum times. Such things sound fantastic, but already they exist in pilot form or in the research stage."

Weighing Dr. Irving's enthusiastic tone, and his capacity as research administrator, it is impossible to imagine that the USDA research department has concentrated much, if any, attention towards developing methods and means which would enable family farmers to survive while improving their soil and providing more nutritious food for a nation suffering from unnecessary malnutrition. As a matter of fact, it is difficult to imagine that Dr. Irving means that there shall be any family farmers whatsoever.

Dr. Irving does not represent an isolated viewpoint in the

United States Department of Agriculture. The Director of what is called the Agricultural Department's Farmer Cooperative Service, Eric Thor, a 'farm economist' expresses a similar enthusiatic view. "Farming is moving with full speed toward becoming part of an integrated market- production system. This system, once it is developed, will be the same as industrialized systems in other U.S. industries."

Other comments by Mr. Thor seem to indicate an attitude which, as a farm economist, has not given him sleepless nights attempting to find ways to stabilize family farming. "The battle for bigness in the food industry was fought and settled 35 years ago - chain stores versus 'Ma and Pa stores'." As a matter of correcting the records, 'Ma and Pa stores' lost during the Second World War, and particularly during the period when food was rationed.

The attitude persists throughout the Department and into areas which were,... or which were described as established to 'help the small farmer'. For example, the Farmers Home Administration under whose authority loans are made to small farmers and in reference to a loan request which was denied to a co-operative of small family farmers in Watsonville, California, who have done exceedingly well in production and sales, Homer Preston, deputy administrator of USDA's Farmer Cooperative Service expressed this view, "The low-income farmer problem is not personally my cup of tea." "Our conventional co-ops are not exactly enthusiastic about them. They don't have much to offer except labor and it is less important today. These people were cotton croppers." "They're tied in with idealism and civil rights, and a lot of romanticism. The purpose of cooperatives is not to keep mass numbers in farming but to help those who remain. You can't go against market trends when everything else points to bigness."

In each progressive step toward bigness the position which has been picked up and echoed is a vague reference to "efficient farming". The attitude has immediate followed each step where anything less than the efficient minimum is impossible. Actually the word, or the term is practically meaningless except when related to manipulated markets and price control codes. If we were to think in terms of efficient production which would relate to total yield per acre of land - plus quality of maturity, freshness, flavor, nutrition, and soil management then it would be extremely difficult to match the capacity of small farmers utilizing family labor and perhaps some regular help.

This is easy to understand when for example it is realized that, say a small apple or peach grower with 10 to 20 acres will not be apt to use "shakers" and one shot harvesting techniques, but will harvest in three or four go-arounds as the fruit matures. On a real quality basis, or even upon marketable quality gimmick, the tonnage from this type of culture well exceeds modern techniques which are extremely wasteful, perhaps by twice.

Small farmers are well acquainted with their land; they know it well and where to concentrate extra attention. Small orchardists can walk through their trees, and tree by tree, recite each tree's production for years. They know which trees produce the best quality and which trees need help. They are sensitive to the well-being of growing things; the feeling exceeds economics, for example a little tinge of light green on young string beans will generally interrupt the peace of mind of a typical small farmer until the condition corrects or he has found the correction.

But this is not called scientific, however what is called scientific agriculture, or the attitude that modern agriculture has been and is scientific is misleading to the point where it is false. To cite a common example, typically many farmers, including farmers who are graduated from agricultural schools, do not take, or may never have taken soil samples. One of California's largest producer-marketing firms, farming on thousands of acres has never, according to their farm supervisor, had a soil sampling made, and certainly nothing approximating U.C. recommendations for sampling soil.

The average conventional farmer relies mainly upon commercial fertilizer salesmen and their soil analysis. Pesticides are sold in the same manner, and farmers are plagued with pesticide and fertilizer salesmen and their rehash of the same pitch,.. which is always a scare story of farmers being wiped out, an impending infestation, and the numerous bugs in the farmer's field. The turn over of pesticide salesmen is continuous, with the average salesman lasting two years. Millions of dollars, hundreds of millions of dollars, and hundreds of millions of pounds of pesticides are dumped into our environment yearly on the advice of these salesmen.

Public statements, official or representing the use of pesticides, and quoting various experts, who may also be entomologists, to describe how necessary pesticides are fail to indicate that, and generally, such experts obtained their expertise by studying or developing poisons to kill insects. They are not experts in the practical application of biological controls; interviews reveal considerable gaps relative to recent information and to the extent in which such controls have been successfully applied.

This committee may wish to seek additional information relative to the practical possibilities of biological controls. Dr. Everett Dietrick of the Biological Control Division of the Vitova Company in Rialto, California would be able to supply detailed information. Other experts would include, Dr. Kenneth Hobbs of Claremont, California, William Olkowski, Berkeley, California, James R. Stewart and James R. Gorden both of Exeter, California.

20. The attitude encouraged officially and picked up by, for example, farmers magazines and the like that rely almost entirely upon advertising revenue from chemical and equipment companies is unable to adjust to more than one type of agriculture and marketing. 'There shall be no difference' is fanatically applied, almost mindlessly, and a quick reqiew of past events reveals that it has been applied detrimentally. It has created an industry largely unable to adjust or to respond meaningfully to a clear consumer demand,.. the clearest, best defined consumer demand in our history for better quality and safer food. It lacks the capacity to recognize that a large growing market is occurring where consumers do want to understand and pay for the problems of those family farmers who do want to understand them.

The no difference attitude may well be the most dangerous entity to the nation's health and well-being today; far outweighing 'enemies' somewhere abroad. While 21 nations refuse to eat U.S.

meat because, in their official judgment, our meat is unsafe and incorporates needless unsafe factors, our millions of American are compelled to eat such meat, without choice or even without the information that they may be consuming carcinogenic agents and developing immunities to emergency lifesaving antibiotics.

Again, as in the forties, the official response to the shocking knowledge that our nation's people are still suffering from increasing malnutrition has been to employ the same old voice-quieting technique by adding more B vitamin and iron to white flour and bread.

In crying "no difference" "no difference" they act almost as mesmerized by their own words while somehow hoping to prevent the logical question which must come, namely: Can there be a difference? Can our food be grown and processed more nutritionally and safely without additions of agents which are known to be harmful? Are there methods that will produce better natural flavors and put fresher food on our tables? In our contact with farmers throughout the year, organic and not-organic, we have yet to talk to a single farmer who has failed to agree that the quality of our food, in real terms, can be upgraded through better farming methods. Currently, there are many thousands of family farmers who have the expertise and the desire to provide wholesome meat, from animals which were treated humanely and without the introduction of stimulants. At present their efficiency is limited only by the stubborn resistance of the merchandizers.

The attitude that big is better, and that, therefore, the adoption of a big conglomeration of huge producer-marketing companies should also then be better has to be viewed as experimental; as an economist attempting to develop a working model of a pet theory without relating to the historical and practical components making up the model. As a matter of immediate and long-range history there is absolutely me reason for assuming any great confidence in the corporate capacity to either be efficient farmers, in any terms, or to produce a desirable agriculture. The facts suggest otherwise.

The facts suggest that it is a gross mistake to operate anything as important as food production on the basis that corporations know what they are doing, and have a clear understanding of their own best interest. With the least amount of research, reams of substantiating examples could be supplied. Offhand examples demonstrating the point might be Boise Cascade, The Penn Central Railroad, and the Lockheed Aircraft Corporation. All demonstrate that it is not practical to imagine that corporations always operate efficiently. As a matter of fact, their consistent history of high cost overruns and expensive mismanaged contracts with the United States Government suggests that a supercorporate agriculture will probably have to be subsidized to an amount likely to reach annuals of 15 billion dollars, or more. It is already being said that Purex has sustained extensive losses in agriculture, and is withdrawing.

The view is easy to picture where as supercorporate agriculture bumbles and stumbles into fantastic 'overruns' and breakdowns the pressures that will then develop will be for some type of permanent federal entry into agricultural production.

OPPORTUNITIES

22. This statement has endeavored to provide information that will reasonably suggest that a meaningful land reform will have to be accompanied with corresponding reforms in food marketing.

In 1910, 41% of the population lived on farms, in 1936, 25% and by 1966, 6%. These statistics correspond with two probably related factors. One: the automobile, and two: the mobile society. Our people are restless, ..moving , frequently changing locations, driving through insane traffic conditions in madcap jammed weekends attempting to be somewhere out of a city. Our young people move about the planet, hitchhiking, wandering and drifting,.. camping, in fact our national parks are being deteriorated literally by the feet of youth, seeking someway and somewhere to feel with the land ... to be part of an experience which has generated a tremendous yearning to live quietly in a natural environment and produce food for a living.

There is also a disturbing lack of orientation ... a lost and not found land of opportunity.

The great yearning to return to the land is rapidly identifying with the elimination of the family farmers, and particularly with small farmers; it has identified with organic farming and natural processing. The pressures developing are more extensive and will be more persistent than is currently suspected. The trend is positive, in fact it has been characterized as the "Gentle Revolution" and it can currently be described as the beginning of an Agricultural Renaissance. Exciting innovation is already in progress; an overview is emerging which is pulling towards a system of elite farmers, greatly enhanced by the experiences of the past and the fantastic possibilities for a personalized, direct input from scientists and technologists.

Senator STEVENSON. The testimony of Mr. Allen concludes the tes- nony scheduled to be received by the subcommittee today, and is e last of a long series of witnesses.

It has been a long day and, on the whole, a long, sad story of life humanized in rural American and in urban America, too.

It appears that this is in part attributable to a governmental pref- ence, however unintentional, for the rich and the powerful, at the pense of little people.

I read in the newspaper just this morning that the cost of the deral Government's direct and indirect subsidies amounts to about 3 billion annually. After a long day, I can't help wonder who is ing subsidized. I can't help wonder whether perhaps everybody is ing subsidized except the people.

I hope before these hearings are concluded that representatives of ribusiness will accept our repeated invitations to appear. So far, I ill have to say that a pattern of some reticence on the part of agri- isiness is emerging.

We will recess the hearing until tomorrow morning January 12, in resno. We will be back in this same room at 9 o'clock on Thursday orning, January 13, for our last day of this three day hearing.

I note that this courtroom that seats well over several hundred rsons has been filled to almost standing room only capacity for is long day, and I am appreciative for the witnesses who have peared as well as citizens who have listened to what has tran- ired.

At this point I order printed the supplemental statement of Mr. llen and all statements of those who could not attend and other rtinent material submitted for the record:

(The material referred to follows:)

Senator Stevenson and Members of this Committee:

1. As an editor of ORGANIC GARDENING AND FARMING my chief qualifications consist of being a related writer, reader, and observer; for example during the past twelve months I have probably traveled 40,000 miles visiting, perhaps one hundred farms throughout the State of California and the United States. Sometimes visiting the same farm two or three times, and frequently extending the visit overnight and upon one occasion for three days. Since the nature of my visits were related to our Organic Farmers Certification Program which is paid for and conducted by Rodale Press, or to collecting information for articles and editorial background, they may be characterized as 'fact finding' and intensive. Farms visited ranged in size from 1 acre to 35,000 acres and include most of the basic food commodities consumed today.

2. As it should be assumed, my testimony is biased, opposing most of the current agricultural practices followed today, as well as certain numerous, almost countless, practices utilized by conventional food processors and retail chains. As a representative of Rodale Press, most of what I express summarizes more than twenty-five years of publishing a variety of periodicals and books on subjects ranging from nuclear power to ecology, food marketing, gardening and farming, recycling and composting, health, and food technology.

3. As this committee understands very well the difficulty in examining a single facet of agriculture, such as migratory workers or dangerous pesticides is that they cannot be properly understood without being related in context to the whole picture of agriculture and food marketing; including, at least, a brief glimpse at their history. For example, prior to 1930 migratory workers and dangerous pesticides were not a significant factor in the development of agriculture and the distribution of food and fiber. As a matter of fact, millions of very small family farmers operating without migratory workers and compounds such as DDT or parathion, and utilizing horses

and mules and hand labor abundantly produced enough food and fiber to build and maintain all the cities and countless towns and villages inherited by the twentieth century.

4. Relating this to the United States, by 1930 our farmers, our comparatively very small family farmers had, according to our government "over-produced". The nation was told that warehouses were bursting and the American farmers were supposedly producing more commodities than the U.S. could consume or export. In a radio address H. R. Tully, Agricultural Adjustment Act Administrator, described the farm problem accordingly: "the experiences of the twenties and thirties taught us that it is necessary to be able to put the brakes on farm production".

5. After describing the problem as over-production it would seem that federal regulation would act to restrict or to reduce production by limiting acreages, or at least, by encouraging smaller farmers possibly by establishing subsidies which diminish rapidly as acreages exceed minimal levels. Dramatically, millions of meat animals were destroyed, or were supposed to be destroyed, as federal price support programs were launched. A most remarkable paradox has followed where in spite of increasing surpluses and periodic cries of alarm imports to this country have increased and the United States Department of Agriculture has spent billions of dollars researching and promoting methods and materials, hybrid seed and so forth, to "increase production".

6. "Increased production" has been accomplished with programs and research almost entirely designed to promote larger holdings. Market development, and distribution utilizing USDA inspections, the law, and powers to severely penalize have been used to develop and maintain monopolies and "price controls" which operate specifically against the potential for profitable production from small acreages. Market orders, state and federal, and "quality" specifications have been designed which limits the "marketable quality" that may be harvested per acre, without limiting acreage. Other programs limit, by law, the production which can be produced on specific acreages.

7. Methods, chemicals and equipment have been introduced without adequate, or even adequate attempts to understand their immediate, and long-range impact upon conservation and the environment. Large acreages of productive land have been permanently destroyed through erosion; even larger areas are now eroding seriously. Unestimable millions of tons of humus have been mined from the soil as a direct result of farming larger holdings with bigger equipment and synthetic fertilizers which add nothing to soils' fertility or tilth. Vast areas, particularly in southern states are now severely crippled by their loss of humus and by methods and materials which have produced large-scale conditions of hardpan. Other regions, including parts of California, are beginning to experience dangerous levels of sodium build-up due to salt fertilizers.

8. Increasingly, environmental experts are willing to identify the agricultural practices developed during the past 35 years as the major contributor to pollution. Water pollution due to nitrogen compounds has been recognized and largely accepted, however the extent is yet to be seen. The annual estimated loss of the topsoil which is choking rivers and reservoirs and washing out to sea is amplified by the annual cost of dredging reservoirs and waterways. The astounding rise in the volume of agricultural contaminants introduced into our environment from 1940 to 1970 has been amply traced by Dr. Barry Commoner in his book, THE CLOSING CIRCLE.

9. During the early forties a number of Americans, academicians, businessmen, farmers, publishers, and the like, alarmed with the destructive trend set by the United States Department of Agriculture, sought to establish an overview which would redirect the nation's agriculture. Calling themselves The New Agriculturists and/or The Friends of the Land they published a number of books and periodicals which described current trends, and described alternative methods and materials, citing demonstrations and examples, giving statistics, and seeking for the first time in this country to promote the concept of the elite farmer, or at least an agricultural system based upon a firm foundation of master farmers operating from an overview which would protect our soil, our environment, and our health.

10. Apparently the concept was too much before the circumstances and farmers largely failed to respond, and consumers failed to understand the relation of safe, nutritious food to farming methods. The movement is significant to this committee on two counts: 1. An alternative agriculture was presented and demonstrated which would have enabled smaller farmers to operate profitably on a nearly self-sustaining basis. 2. It called to attention then that federal regulation was sponsoring and pursuing food producing practices which ignored nutrition and was, in fact, sponsoring methods and materials which would produce a health hazard.

11. Perhaps in response, and belatedly responding to a USDA survey taken in the mid-thirties which indicated that one-third of the nation's people were "ill-fed" . . and casting numerous peculiar questions upon the 1933 USDA position that the nation was suffering from overproduction, . . white flour and bread was "enriched", by law in the early 40's, with B vitamins and iron. With this single exception, the USDA and related agencies have failed to pursue and to develop methods and materials which would improve, or at least guarantee a high level of necessary vitamins, trace minerals, and the necessary amino acids.

12. Which is not to suggest that farmers are legally prevented from producing food that is more nutritious, they are simply not encouraged to. The "Market" is a term which seems to be describing what consumers are buying, and while it does reflect what is "moving" it tends to mean what retailers buy. Frequently, in fact more and more, farmers would like to supply the real quality and variety which everyone knows that consumers would like, including improved nutrition, but the market price remains the same and perhaps less. There is little or no profit incentive for real quality or for extra risk. The "Market" dominates, and often the size or type of a packing crate is more important than the quality of the product within.

13. Quickly summarizing the developments over the past 39 years produces the picture where a stabalized agricultural system of family farmers was disturbed, perhaps unnecessarily, systematically elimi-

nated, and is now on the verge of extinction. May we ask why, or perhaps a better question would be, what have we got in exchange? . . In terms of meaningful efficiencies the exchange has been disasterous, and if we add together all of the taxpayers' money which has been spent for agriculturally related programs and add this proportionately to the food which we buy then we are probably paying twice as much as we think we are.

14. If uniformity, a rather boring mediocre sameness is important, then uniformity is one plus picked up in the exchange. And then, it is also said that the move into larger agricultural units has brought improved distribution, which might be questioned on two counts. 1. Distribution was bound to improve simply as a matter of need and evolutionary development. 2. Why should the production of a one thousand-acre unit improve distribution more than if the same area operated as ten one-hundred acre units?

15. The real answer has to relate to something more like an attitude which wants improved distribution for very, very large units. To something like, "there shall be no differences and uniformly big shall spread across the land". In any event, there is and has been an anti-little attitude, somewhat as though little or small, or different, is alien and undesirable. The attitude is unable or unwilling to adjust to more than one type of agriculture and one type of marketing. "There shall be no difference" is fanatically applied, almost mindlessly, and a quick review of past events reveals that it has been applied detrimentally. It has created an industry largely unable to adjust or to respond meaningfully to a clear consumer demand, . . the clearest, best defined consumer demand in our history for better quality and safer food. It lacks the capacity to recognize that a large growing alternative market is occurring where consumers do want to understand and pay for the problems of those family farmers who do want to understand them.

16. The no difference attitude may well be the most dangerous entity to the nation's health and well-being today; far outweighing 'enemies' somewhere abroad. While 21 nations refuse to eat U.S. meat because,

in their official judgement, our meat is unsafe and incorporates needless unsafe factors, our millions of Americans are compelled to eat such meat, without choice or even without knowledge that they may be consuming carcinogenic agents and developing immunities to emergency lifesaving antibiotics.

17. Again, as in the forties, the official response to the shocking knowledge that our nation's people are still suffering from increasing malnutrition has been to employ the same old voice-quieting technique by adding more B vitamin and iron to white flour and bread.

18. In crying "no differences", "no differences" they seem to hope that in doing so they will prevent the logical questions which must come, namely; can there be a difference? Can our food be grown and processed more nutritionally and safely without additions of agents which are known to be harmful? Are there methods that will produce better natural flavors and put fresher food on our tables? In our contact with farmers throughout the years, organic and not-organic, we have yet to talk to a single farmer who has failed to agree that the quality of our food, in real terms, can be upgraded through better farming methods.

19. The attitude that big is better, and that, therefore, the adoption of a big conglomeration of huge producer-marketing companies should also then be better has to be viewed as experimental; as an economist attempting to develop a working model of a pet theory without relating to the historical and practical components making up the model. As a matter of immediate and long-range history there is absolutely no reason for assuming any great confidence in the corporate capacity to either be efficient farmers, in any terms, or to produce a desirable agriculture. The facts suggest otherwise.

20. The facts suggest that it is a gross mistake to operate anything as important as food production on the basis that corporations know what they are doing, and have a clear understanding of

their own best interest. With the least amount of research, reams of substantiating examples could be supplied. Offhand examples demonstrating the point might be Bosie Cascade, The Penn Central Railroad, and the Lockheed Aircraft Corporation. All demonstrate that it is not practical to imagine that corporations always operate efficiently. As a matter of fact, their consistent history of high cost overruns, and expensive mismanaged contracts with the United States Government suggests that a supercorporate agriculture will probably have to be subsidized to an amount likely to reach annuals of 15 billion dollars, or more. It is already being said that Purex has sustained extensive losses in agriculture, and is withdrawing.

21. The view is easy to picture where as supercorporate agriculture bumbles and stumbles into fantastic "overruns" and breakdowns the pressures that will then develop will be for some type of permanent federal entry into agricultural production.

22. We cannot really afford to permit our food production and our food producing resources to slip any further into the hands of an institution which is entirely committed to making money and to moving in and out of profitable markets. For our own protection we must have a strong alternative which has demonstrated for centuries that it is committed first to producing food. And then there are human values to weigh. In 1910, 41% of the population lived on farms, in 1936, 25%, by 1966, 6%, and by 1972, 1%. These statistics correspond with two probably related factors. One: the automobile, and two: the mobile society. Our people are restless, moving, frequently changing locations, driving through insane traffic conditions in madcap jammed weekends, attempting to be somewhere out of a city. Our young people move about the planet, hitchhiking, wandering and drifting, . . camping, in fact our national parks are being deteriorated literally by the feet of youth, seeking someway and somewhere to feel with the land . . . to be part of an experience which has generated a tremendous yearning to live quietly in a natural environment and produce food for a living.

23. There is also a disturbing lack of orientation . . a lost and not found land of opportunity.

24. The great yearning to return to the land is rapidly identifying with the elimination of the family farmer, and particularly with small farmers; it is identifying with the problems of migratory workers; it has identified with organic farming and natural processing. The pressures developing are more extensive and will be more persistent than is currently understood. The trend is positive, in fact it has been characterized as the "Gentle Revolution" and it can be described as the beginning of an Agricultural Renaissance. Exciting innovation is already in progress; an overview is emerging which is pulling towards a system of elite farmers, greatly enhanced by the experiences of the past and the fantastic possibilities for a personalized, direct input from scientists and technologists.

6212 Redwing Court
Bethesda, Maryland
20034
March 8, 1972

Senator Adlai Stevenson
Subcommittee on Migratory Labor
201 Senate Annex
Washington, D.C. 20010

Dear Senator Stevenson:

Pursuant to your request to the public to provide information for the Subcommittee record on the agribusiness operations, I am enclosing a copy of an article of mine entitled "Multiple Ownerships and Single Operation - An Aspect of the Acreage Limitation in Reclamation Law", published in the Natural Resource Journal, Vol. III, No. 2, May, 1970. It examines techniques for interpretation of the individual ownership requirement of Reclamation law so as to put together large-scale farming operations.

Sincerely yours,

Harry J Hogan

Harry J. Hogan

Enc. 1

1172

Natural Resources Lawyer

Volume III, Number 2
May, 1970

Journal of the
Section of Natural Resources Law
American Bar Association

HARRY J. HOGAN*

Multiple Ownerships and Single Operation – An Aspect of The Acreage Limitation in Reclamation Law[1]

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Material

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pp. 1173-1192 deleted

(Whereupon, at 5:15 p.m., the hearing recessed to reconvene at 9:30 a.m., Wednesday, Jan. 12, 1971, in Fresno, Calif.)

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